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4 March 1986

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AGRICULTURE

INTERNATIONAL AFFAIRS

AGRICULTURAL DEVELOPMENT IN ROMANIA, OTHER COUNTRIES COMPARED

Bucharest REVISTA DE STATISTICA in Romanian Sep 85 pp 20-29

[Article by Nicolae Greavu: "Development of Agriculture in Romania Compared to Other Countries"]

[Text] During the years of socialist construction, and especially since the 9th Congress of the Romanian Communist Party, agriculture, which has been organically integrated into the general program for all-round development of the national economy, has undergone vigorous development and has been transformed from a backward and fragmented agriculture with a very poor complement of equipment into a modern agriculture marked by a high level of mechanization.

Romanian agriculture is today a basic sector of the national economy. With its increasing crop and livestock output, it is capable of satisfying the ever greater consumption needs of the population and of providing industry with raw materials and substantial surpluses for other needs of the national economy.

The profound transformations that have taken place in Romanian agriculture have led to significant changes in Romania's place and share in world and European agriculture.

These changes are to be discussed in what follows, on the basis of available data, as is also the development of agriculture in Romania in comparison to agriculture in other countries.

1. From the viewpoint of total area, Romania is a country of medium size, occupying 76th place in the world and 12th in Europe. It is above average, however, when it comes to farming conditions. Farm land and arable land take up a much larger part of the total land area in Romania than they do worldwide and in Europe, as is shown by the data in Table 1.

Arable land in Romania accounts for a larger share of the total area of the country than in many other countries in Europe or on other continents, among them Czechoslovakia (39.4 percent), Bulgaria (34.4 percent), France (31.5 percent), Italy (31.4 percent), Spain (30.8 percent), the Federal Republic of Germany (29.1 percent), the United Kingdom (28.2 percent), Yugoslavia, the United Kingdom (20.2 percent), Austria (18.3 percent), the USSR (10.2 percent), Argentina (9.4 percent), etc.

Table 1. Total Land Area Structure (At the End of 1982, in Percent)

	România	(8) Total mondial	(9) Europa <sup>1)</sup>
(1) Suprafața totală	100.0	100.0	100.0
(2) - suprafața agricolă	63.0	34.6	46.5
(3) - teren arabil	41.6	10.2	26.0
(4) - vii și livezi	2.7	0.8	2.9
(5) - pășuni și flânețe	18.7	23.6	17.6
(6) - fond forestier	26.7	30.5	31.9
(7) - alte suprafețe	10.3	34.9	21.6

Key:

- |                            |                           |
|----------------------------|---------------------------|
| 1. Total area              | 6. Forest reserves        |
| 2. Farm land               | 7. Other areas            |
| 3. Arable land             | 8. Worldwide              |
| 4. Vineyards and orchards  | 9. Europe (less the USSR) |
| 5. Meadows and pastureland |                           |

The higher potential available to Romania, in comparison to the majority of countries in Europe or on other continents, for obtaining higher agricultural yields is also shown by the data on the average amount of arable land per inhabitant. While this amount was 0.30 hectare worldwide in 1982, and 0.26 for European countries in the aggregate, in Romania it was 0.44 hectare. In this respect Romania is ahead of Bulgaria (0.43 hectare), Poland (0.40 hectare), Czechoslovakia (0.33 hectare), France (0.32 hectare), Yugoslavia (0.31 hectare), the German Democratic Republic (0.28 hectare), India (0.24 hectare), Austria (0.20 hectare), Italy (0.24 hectare), the United Kingdom (0.12 hectare), and other countries. The countries in which the amount of arable land per inhabitant is higher than that in Romania include Hungary (0.47 hectare), Brazil (0.50 hectare), the United States (0.81 hectare), the USSR (0.84 hectare), Argentina (0.94 hectare), Canada (1.87 hectare), etc.

2. As a result of the more pronounced development of agriculture in the majority of African, South American, and Asian countries, the population employed in agriculture has increased from year to year in world agriculture as a whole, rising from 795.9 million persons in 1970 to 818.5 million in 1975, 827.4 in 1980, and 832.5 million persons in 1983. Because of the more rapid growth of population employed in industry and other non-agricultural sectors, the percentage of population employed in world population is declining, having dropped from 51.4 percent in 1970 to 48.3 percent in 1975 and 43.5 percent in 1983.

In contrast to the situation worldwide, the population employed in European agriculture has declined steadily, both in numbers and in percentage of the gainfully employed population. It dropped from 41.8 million persons in 1970 to 37.5 million in 1975 and 30.5 million in 1983 (hence the gainfully employed agricultural population decreased 27.0 percent over the period from 1970 to 1983). At the same time, the share of the total gainfully employed

employed in agriculture dropped from 20.7 percent in 1970 to only 13.8 percent in 1983.

Because of the rapid development of industry and other non-agricultural sectors, along with the stepped up pace of mechanization of farming operations, the population employed in agriculture decreased more sharply than it did in Europe as a whole. In 1983, 3.0 million persons were employed in agriculture in Romania, as against 3.8 million in 1975 and 4.8 million in 1970, this representing a drop of 37.7 percent. The percentage of the total population employed in Romanian agriculture was 28.9 percent at the end of 1983, as against 37.8 percent at the end of 1975 and 49.1 percent in 1970.

Despite this sharp decline, more of the total population in Romania continues to be employed in agriculture than in other countries with an advanced agriculture (in 1983 the percentage of the population employed in agriculture was 1.8 percent in the United Kingdom, 3.3 percent in the German Federal Republic, 7.5 percent in France, 8.7 percent in the German Democratic Republic, 8.8 percent in Czechoslovakia, 9.5 percent in Italy, 13.5 percent in Hungary, 14.5 percent in the USSR, etc). This indicates the potential available to agriculture for continuing to free a significant part of the labor force for employment in the non-agricultural sectors.

3. Substantial financial capital has been allocated to develop and modernize the material and equipment resources of agriculture, especially in recent years. Nearly 105 billion lei have been invested during the first 3 years of the current five-year plan alone. This amount is more than twice the amount invested over the entire 1966-1970 period and nearly 35 percent more than over the period from 1971 to 1975.

The increase in the volume of investment in Romanian has been much higher in Romania than in the other European socialist countries. While the volume of investment in agriculture and forestry in Romania was nearly 2.2 times greater in 1982 than in 1970, it was 2.0 times higher in the USSR, 1.9 times in Czechoslovakia, 1.4 times in Poland and Bulgaria, and 1.1 times in Hungary, while it remained at the same level in the German Democratic Republic.

The constant effort of the Romanian state to develop and modernize the material and equipment resources of agriculture, compared to some of the European socialist countries, is shown by the higher percentage of the total volume of investments made in agriculture. While this percentage has risen over the last several years (as it has also in Poland and Hungary), declines have been recorded in the other socialist countries, as is to be seen from the data given in Table 2.

The investment capital has been utilized for the most part to provide improved high-performance tractors and farm machinery, build industrial-type livestock raising complexes, expand land improvement projects, etc.

The fleet of farm tractors doubled in Romania over the 1965-1982 period, this increase being higher than that of European agriculture as a whole (+79.2 percent) and of world agriculture (+66.9 percent). In addition, the growth of the tractor fleet in Romania has been greater than in many other countries in Europe and elsewhere in the world. For example, this increase

was only 21.0 percent in the German Democratic Republic, 26.0 percent in the Federal Republic of Germany, 26.8 percent in England, 55.1 percent in France, and 64.2 percent in the USSR. Sharper increases in the tractor fleet occurred in only a few countries, including Yugoslavia (by a factor of 10.9), Poland (5.7), and Italy (by a factor of 2.7).

Table 2. Percentage of Total Investments in Agriculture (in Percent)

	1975	1982
România	13.5	15.6
Bulgaria	14.7	9.8
(1) Czechoslovakia	12.8	12.8
(2) R. D. Germană	12.7	9.1
(3) Polonia	13.5	19.6
(4) Ungaria	13.8	17.0
(5) U.R.S.S.	20.8	19.6

Key:

- |                               |            |
|-------------------------------|------------|
| 1. Czechoslovakia             | 4. Hungary |
| 2. German Democratic Republic | 5. USSR    |
| 3. Poland                     |            |

The increase in the number of tractors has resulted in decline in the area per tractor. In world agriculture as a whole, the amount of arable land plus vineyards plus orchards per tractor dropped from 107 hectares of arable land in 1965 to 65 hectares in 1982, while for the European countries in the aggregate the respective figures were 30 and 16 hectares.

In Romania, the arable land plus vineyards plus orchards per tractor has decreased from 129 to 62 hectares. This decline has been much greater than in many other countries, with the result that Romanian agriculture has come to be better equipped than other countries such as Bulgaria (69 hectares), Canada (70 hectares), Hungary (96 hectares), and the USSR (88 hectares). In 1965, these countries were ahead of Romania in provision of equipment.

Romania nevertheless lags behind some countries with a highly developed agriculture (Italy, France, German Democratic Republic, Poland, United States).

In addition to outfitting agriculture with improved high-performance tractors and farm machinery, the Romanian state has devoted particular attention, over the recent period in particular, to land improvement projects, assigning priority to enlargement of the area developed for irrigation, this being a decisive factor in obtaining stable and dependable agricultural output.

At the end of 1982, the area developed for irrigation was 2.38 million hectares, as against 230,000 hectares in 1965; the rate of growth has been substantially higher than that recorded in the majority of countries. At the same time, the percentage of the total farm land developed for irrigation rose from 1.6 percent in 1965 to 15.4 percent at the end of 1982. This places Romania in the category of high-percentage countries, ahead of the majority of countries in Europe or elsewhere in the world (at the end of

1982, the percentage of total farm land developed for irrigation was 9.6 percent for European countries as a whole and 4.6 percent worldwide). It should be noted that only in Bulgaria and Italy among the European countries is this percentage higher than in Romania.

Impelled by the need to enlarge the area developed for irrigation in order to ensure dependable and stable production, Romania has instituted a national land improvement program. According to this program, by the end of 1990 the area developed for irrigation will reach 5.5 to 6.0 million hectares, with the result that 55 to 60 percent of the arable land of the country will be irrigated. As Comrade Nicolae Ceausescu has pointed out, "only by ensuring irrigation of land in areas affected by drought every year to a greater or lesser extent will we be able to achieve stable production on a long-term basis and guarantee the carrying out of a new agrarian revolution establishing a highly efficient high-yield agriculture."

One highly important factor ensuring substantial increase in agricultural crop production is agricultural use of chemicals. This process has proceeded at a faster pace in Romania than in the great majority of other countries. While in world agriculture as a whole the amount of chemical fertilizers applied had by 1982 risen about 60 percent over that applied in 1970, there was a more than twofold increase in Romania.

The amount of chemical fertilizers applied per unit area is nevertheless still low in Romania. Consequently, the 13th Congress of the Romanian Communist Party set the target of applying 335 to 380 kilograms of chemical fertilizers (in terms of primary component) per hectare of arable land during the forthcoming five-year plan, in comparison to 117 kilograms in 1983.

4. An important place in the Romanian party and state policy for development and modernization of agriculture has been assigned to increase in farm crop production, a sector in which better use can be made of the natural conditions of the country.

Farm crop production has grown more markedly in Romania than in world agriculture in the aggregate. For example, grain cereal production rose nearly 40 percent over the 1981-1983 period (on the annual average) (25 percent worldwide) relative to 1971-1975 (on the annual average), that of sugar beets 18.5 percent (14.6 percent worldwide), that of potatoes 54.1 percent (in which there was a 3.7-percent decline worldwide), and grape production increased 14.0 percent (14.0 percent worldwide).

The faster development of crop production in Romania than in many other producing countries has led to significant changes in the place occupied by Romania in the ranking of countries in Europe or on other continents.

In 1983, the USSR, France, the German Federal Republic, Poland, and England outstripped Romania in Europe in total cereal grain production. Romania was outstripped by the USSR, Poland, and the German Democratic Republic in potato production, and it was behind the USSR, Italy, France, Spain, and the Federal Republic of Germany in grape output.

Table 3. Farm Crop Output for Various Crops (Annual Average, in Millions of Tons)

	România			(1) Total mondial		
	1971- 1975	1981- 1983	%	1971- 1975	1981- 1983	%
(2) Cereale boabe	14.8	20.6	139.3	1333.5	1666.6	125.0
(3) — grâu	5.5*)	5.7*)	104.6	358.6	479.5	133.7
(4) — porumb	8.3	12.2	145.7	307.0	415.7	135.4
(5) Sfeclă de zahăr	4.8	5.6	118.5	245.3	281.1	114.6
(6) Cartofi	3.4	5.2	154.1	297.2	286.1	96.3
(7) Struguri	1.2	1.9	156.9	57.7	65.8	114.0

(\*) Including rye.

Key:

- |                 |                |
|-----------------|----------------|
| 1. Worldwide    | 5. Sugar beets |
| 2. Cereal grain | 6. Potatoes    |
| 3. Wheat        | 7. Grapes      |
| 4. Corn         |                |

Table 4. Ranking of Romania in World and European Agriculture in Growing of Chief Farm Crop Products

	Cereale (1) boabe		Sfeclă (2) zahăr		(3) Cartofi		(4) Struguri	
	1970	1983	1970	1983	1970	1983	1970	1983
(5) În agricultura mondială	23	18	18	17	19	9	15	9
(6) În agricultura europeană	8	6	13	12	13	4	10	6

Key:

- |                 |                            |
|-----------------|----------------------------|
| 1. Cereal grain | 4. Grapes                  |
| 2. Sugar beets  | 5. In world agriculture    |
| 3. Potatoes     | 6. In European agriculture |

There was also an increase over this period in the contribution made by Romania to worldwide and European farm crop production, as is illustrated by the data in Table 5.

Romania is currently one of the leading countries both in Europe and in all the world in production per inhabitant. In addition, the level reached by Romania in 1983 in output of leading crops far exceeds that reached in world agriculture as a whole or even in Europe (see Table 6).

The brisker growth of farm crop production in Romania than in other countries in Europe or elsewhere in the world has been due mainly to the sharper increase in the yields per hectare. While these yields had risen by 1983 in Romania relative to 1970 by 61.1 percent in the case of wheat, 80.2 percent for corn, 9.2 percent for sugar beets, 2.7 times for potatoes, and 2.5 times for grapes, worldwide and European agriculture had registered much lower growth, as is to be seen from the data in Table 7.

Table 5. Romania's Share of World and European Production of Chief Crops  
(in Percent)

	(1) În agricultura mondială		(2) În agricultura europeană <sup>1)</sup>	
	1971-1975 <sup>2)</sup>	1981-1983 <sup>2)</sup>	1971-1975 <sup>2)</sup>	1981-1983 <sup>2)</sup>
(3) Cereale boabe	1.11	1.24	6.61	7.99
(4) Sfeclă de zahăr	1.96	1.99	3.56	3.58
(5) Cartofi	1.14	1.82	3.91	5.08
(6) Struguri	2.08	2.89	3.92	5.15

(1) Less the USSR

(2) Annual average

Key:

- |                                  |                |
|----------------------------------|----------------|
| 1. Share of world agriculture    | 4. Sugar beets |
| 2. Share of European agriculture | 5. Potatoes    |
| 3. Cereal grain                  | 6. Grapes      |

Table 6. Production per Inhabitant of Chief Farm Crops in 1983 (in Kilograms)

	România <sup>(1)</sup>	Total mondial	Europa <sup>(2)</sup>
(3) Cereale boabe	860	351	525
(4) Sfeclă de zahăr	214	58	277
(5) Cartofi	275	61	194
(6) Struguri	76	14	75

(1) Less the USSR

Key:

- |                 |                |
|-----------------|----------------|
| 1. World total  | 4. Sugar beets |
| 2. Europe       | 5. Potatoes    |
| 3. Cereal grain | 6. Grapes      |

At the same time, this has led to substantial narrowing of the gap between average production levels in Romania and in world and European agriculture as a whole. While in 1970 the per-hectare yields of the main crops in Romania were much lower than those achieved in world and European agriculture as a whole, average per-hectare yields near or even higher than those in world or European agriculture as a whole were reached in 1983.

The average yields per hectare nevertheless remain below the level reached in some major producing countries, especially in Europe (see Table 8). Considering the potential available to Romanian agriculture, attested also by the fact that in 1984 a significant number of farm units produced more than 8000 kilograms of wheat per hectare, more than 20,000 kilograms of corn on the cob per hectare, more than 40,000 kilograms of sugar beets per hectare, and around 10,000 kilograms of grapes per hectare, the directives approved by the 13th Congress of the Romanian Communist Party call for much higher yields per hectare by 1990 (4000 to 4200 kilograms of wheat, 5500 to 6000

kilograms of corn, 40,000 to 42,000 kilograms of sugar beets, and 206,000 to 28,000 kilograms of winter potatoes).

Table 7. Dynamics of Per-Hectare Yields (1970 = 100)

	România	(1) Total mon-dial	(2) Europa <sup>1)</sup>
(3) Grâu <sup>2)</sup>	161.1	143.4	154.9
(4) Porumb	180.2	114.7	155.3
(5) Sfeclă de zahăr	109.2	102.2	105.8
(6) Cartofi	267.8	103.7	97.4
(7) Struguri	252.7	118.8	110.2

(1) Less the USSR

(2) Including rye

Key:

1. Worldwide

2. Europe

3. Wheat

4. Corn

5. Sugar beets

6. Potatoes

7. Grapes

Table 8. Average Per-Hectare Yields in 1983 (in Kilograms)

	România	(1) Total mondial	(2) Europa <sup>1)</sup>
(3) Grâu <sup>2)</sup>	2 320	2 166	3 795
(4) Porumb	3 820	2 798	5 062
(5) Sfeclă de zahăr	18 790	30 558	37 337
(6) Cartofi	19 040	14 205	18 015
(7) Struguri	6 570	6 580	6 283

(1) Less the USSR

(2) Including rye

Key:

1. Worldwide

2. Europe

3. Wheat

4. Corn

5. Sugar beets

6. Potatoes

7. Grapes

As Comrade Nicolae Ceausescu pointed out in the report to the 13th Party Congress, "the main aim of the new agrarian revolution is intensive development of production to achieve record harvests and on this basis increase the contribution made by agriculture to the general development of the country."

5. The measures taken in Romania during the years of socialist construction, and especially after 1965, have led to substantial increase in the number of livestock of all species, along with radical improvement in herd structure.

More pronounced growth has occurred in Romania than in Europe as a whole and worldwide. While in Romania the number of livestock had by 1983 increased by 36.8 percent relative to 1965 in the case of cattle, by 2.7 times in that of hogs, and by 40.6 percent in the case of sheep, the growth in Europe (less the USSR) was only 10.3 percent in the case of cattle, 49.2 percent in that of hogs, and 6 percent in the case of sheep, the figures for the world as a whole being 25.9 percent for cattle, 32.9 percent for hogs, and 9.8 percent for sheep (Table 9).

Table 9. Numbers of Chief Species of Livestock (in Thousands of Heads)

		1965	1970	1975	1983
(1) Bovine	România	4.9	5.2	6.1	6.8
	(4) Total mondial	1071.5	1250.7	1331.8	1349.5
	(5) Europa <sup>1)</sup>	121.2	130.9	135.3	133.8
(2) Porcine	România	5.4	6.4	8.8	14.3
	Total mondial	582.0	626.9	654.7	773.6
	Europa <sup>1)</sup>	116.3	130.9	157.0	173.6
(3) Ovine	România	13.1	13.8	13.9	18.5
	Total mondial	1036.3	1063.1	1030.6	1137.4
	Europa <sup>1)</sup>	133.6	128.4	125.5	142.6

Key:

- |           |                           |
|-----------|---------------------------|
| 1. Cattle | 4. World total            |
| 2. Hogs   | 5. Europe (less the USSR) |
| 3. Sheep  |                           |

While the number of livestock has increased steadily in Romania over the entire period in question, this number has fluctuated in Europe as a whole and worldwide, especially in the case of sheep.

The greater increase in the number of livestock in Romania, in comparison to the situation prevailing in Europe as a whole and worldwide, has also led to increase in Romania's share in the number of world and European livestock, as is to be seen from the data in Table 10.

Table 10. Romanian share of livestock (in percent)

	(4) In total mondial		(5) In Europa <sup>1)</sup>	
	1965	1983	1965	1983
(1) Bovine	0.46	0.50	4.07	5.05
(2) Porcine	0.92	1.85	4.61	8.27
(3) Ovine	1.27	1.62	9.83	12.94

Key:

- |           |                              |
|-----------|------------------------------|
| 1. Cattle | 4. In world total            |
| 2. Hogs   | 5. In Europe (less the USSR) |
| 3. Sheep  |                              |

Significant changes also took place over this period as regards Romania's ranking among countries in Europe or on other continents (Table 11).

Table 11. Romanian ranking in World and European Agriculture by Number of Livestock

		(3) Bovine		(4) Porcine		(5) Ovine	
		1965	1983	1965	1983	1965	1983
(1)	În agricultura mondială	35	32	17	8	17	14
(2)	În agricultura europeană	9	8	11	4	4	3

Key:

- |                            |          |
|----------------------------|----------|
| 1. In world agriculture    | 4. Hogs  |
| 2. In European agriculture | 5. Sheep |
| 3. Cattle                  |          |

At the end of 1983, Romania was among the leaders in Europe, behind the USSR, France, the German Federal Republic, England, Poland, Italy, and Ireland in cattle, the USSR, the Federal Republic of Germany, and Poland in hogs, and the USSR and England in sheep. Romania is also one of the leaders worldwide in number of livestock, especially sheep and hogs.

The sustained efforts to develop livestock raising in Romania are also indicated by the increase in the number of livestock per 100 inhabitants. By 1983 this figure had risen 15.4 percent relative to 1965 in the case of cattle, 125.5 percent in that of hogs, and 18.6 percent in the case of sheep. Decreases in the numbers of all species occurred worldwide over this period, and increases were recorded in Europe only for hogs and cattle (but the increases were much smaller than in Romania). This situation is summarized in Table 12.

Table 12. Number of Heads of Livestock per 100 Inhabitants

		(3) Bovine		(4) Porcine		(5) Ovine	
		1965	1983	1965	1983	1965	1983
(1)	România	25.9	29.9	28.2	63.6	60.9	81.8
(2)	Total mondial	31.2	28.9	17.0	16.6	30.2	24.4
(2)	Europa <sup>1)</sup>	27.0	27.3	25.9	35.4	29.7	29.1

Key:

- |                           |          |
|---------------------------|----------|
| 1. World total            | 4. Hogs  |
| 2. Europe (less the USSR) | 5. Sheep |
| 3. Cattle                 |          |

At the end of 1983, the number of livestock per 100 inhabitants was nearly 4 times as great in Romania than in aggregate world agriculture in the case of hogs, more than 3 times greater in the case of sheep, and approximately the same in the case of cattle. There were nearly twice as many hogs in Romania

as in total European agriculture, about 3 times as many sheep, and approximately the same number of cattle.

As a result of these conditions, within a relatively short period livestock production in Romania will fully satisfy the consumption needs of the population and will supply increasing amounts of livestock products for industry and larger surpluses for other needs of the national economy.

The faster pace of growth in number of livestock coupled with the higher average production per head of stock has also led to more pronounced increase in livestock production in Romania than in worldwide and European agriculture.

Table 13. Production of Principal Livestock Products (in Thousands of Tons)

	1965	1970	1975	1983
<b>(3) Carne (saeriticiiri)</b>				
România	657	932	1 328	1 616
(1) Total mondial	...	104 095	119 853	139 933
(2) Europa <sup>1)</sup>	...	27 596	33 916	39 720
<b>(4) Lapte de vacă</b>				
România	2 972	3 549	4 226	4 876
Total mondial	360 492	390 614	411 346	454 027
Europa <sup>1)</sup>	136 641	147 916	160 419	186 745
<b>(5) Lână</b>				
România	25,4	29,7	31,5	39,4
Total mondial	2 599,0	2770,0	2 642,9	2 860,3
Europa <sup>1)</sup>	277,3	254,8	260,9	281,2

Key:

- |                            |               |
|----------------------------|---------------|
| 1. World total             | 4. Cow's milk |
| 2. Europe (less the USSR)  | 5. Wool       |
| 3. Meat (slaughter weight) |               |

While meat production in Romania had by 1983 risen 73.3 percent relative to the 1970 level, in world agriculture as a whole it increased only 34.4 percent over the same period and 43.9 percent in Europe. The production of cow's milk obtained in 1983 was 64.1 percent above the 1970 level, outstripping the increase in world agriculture as a whole (+25.9 percent) and in Europe (+36.7 percent). The increase in wool production in Romania was much higher than that achieved in world agriculture (+10.1 percent) and in that of Europe (+1.4 percent).

At the same time, significant changes have taken place in Romania's share of worldwide and European livestock production. In 1983, Romania accounted for 4.07 percent of European meat production (3.38% in 1970), 2.61 percent of its milk production (2.18 percent in 1965), and 14.1 percent of its wool produced (9.16 percent in 1965), and noteworthy changes have accordingly been made in the country's ranking.

Table 14. Romanian Ranking in World and European Agriculture Based on Principal Livestock Products

	(3) Carne-total		(4) Lapte de vacă		(5) Lână	
	1970	1983	1965	1983	1965	1983
(1) În agricultura mondială	22	19	25	22	17	12
(2) În agricultura europeană	13	11	16	13	6	3

Key:

- |                            |               |
|----------------------------|---------------|
| 1. In world agriculture    | 4. Cow's milk |
| 2. In European agriculture | 5. Wool       |
| 3. Total meat              |               |

The Romanian achievements in increasing livestock production, relative to the situation in other countries, are also reflected in the data on production per inhabitant. In 1983, Romanian production was higher than that of aggregate world agriculture by a factor of 2.4 in the case of meat, 2.2 in that of cow's milk, and by a factor of nearly 3 in the case of wool.

While the production per inhabitant in Romania had by 1983 risen 46.9 percent over the 1965 level in the case of meat, 38.5 percent in that of cow's milk, and 30.8 percent in the case of wool, lower growth or even a decline was observed in aggregate world and European agriculture. Thus, in the European countries as a whole, the production per inhabitant rose 32.7 percent in the case of meat and 25.3 percent in that of cow's milk, while wool production dropped 8.1 percent. In world agriculture as a whole, the production of meat per inhabitant remained at the same level, while that of cow's milk dropped 7.6 percent and that of wool 25.0 percent.

The upward trend in the development of the Romanian economy, which has been one of the most vigorous worldwide and in Europe, has also characterized agriculture, a sector in which higher growth has been recorded than in other countries. Development and modernization of the materials and equipment resources of agriculture have been accompanied by faster growth of crop and livestock production, and especially by increase in the yields per hectare and per head of stock.

This growth of agricultural output has resulted, firstly, in change in Romania's ranking in world and European agriculture from the viewpoint of production of the chief crop and livestock products, and secondly to narrowing of the gap between Romania and the advanced countries.

Because of the very low base level inherited from the bourgeois-landowner regime, some gaps still persist, especially as regards average production per hectare or per head of stock. This confirms the extensive potential of Romanian agriculture for continuing increase in production, particularly by means of intensive agricultural development.

In this context the documents of the 13th Congress of the Romanian Communist Party call for new measures over the 1986-1990 period involving both materials and equipment resources and faster growth of crop and livestock production, that is, carrying out a new agrarian revolution. "The fundamental aim in agriculture," stated Comrade Nicolae Ceausescu in the report presented at the 13th Congress of the Romanian Communist Party, "will be the carrying out of a new agrarian revolution. This presupposes a large-scale transformation of the style of work, life, and thought of our cooperative farmers and achievement of agricultural production which fully meets the consumption needs of the entire people and satisfies other requirements for development of the national economy."

6115

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ECONOMY

INTERNATIONAL AFFAIRS

CHANGES INDICATED IN YUGOSLAV-CEMA RELATIONS

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 23-25 Nov 85 p 2

[Article by Andja Petrovic: "For More Trade - New Quality"]

[Text] While trade with one group of countries is falling, it is growing with others, regardless of the circumstances these partners are in. --Expectations for a further growth in cooperation have not been lowered, but new procedures and contents must be introduced.

Yugoslavia's economic relations with the member countries of CEMA have always been and remain one of the most significant aspects of our foreign policy. This has been born out by the current five-year plan. Some branches of the economy have formed and continue to maintain very broad and long-term ties, which clarifies why this is a matter of mutual interest, without which cooperation would never have originated or continued to develop. At the end of 1985 and the beginning of 1986, agreements on cooperation for the next five period will be concluded. They already have been concluded with some countries and are in final preparation with others. This fait accompli has been preceded by consultations on the part of Yugoslav foreign trade agencies as well as by each separate trading partner, all beginning over a year ago.

By Too Little or Sufficient Industrial Cooperation

In fact, these consultations have shown, and much of this was noticeable before, that to a large degree classical forms are no longer adequate for furthering cooperation between the economy of Yugoslavia and the economies of the member countries of CEMA, and that new forms must be introduced. A few examples will show that this is the case: after an encouraging period of growth, trade with Bulgaria and Rumania - conducted with the convertible form of payment - for a few years now has stagnated, and even fell for a time. There has been little industrial cooperation or specialized production with these countries, or many long-term agreements included in development plans; and those that already exist, meet with changing luck and inadequately guaranteed success.

Poland and Hungary are in another group with whom trade is also conducted using convertible currency, this much is the same. But trade continually progresses, even when the extraordinarily complicated circumstances which have

hit Poland, and in part the Hungarian economy (and of course the Yugoslav economy as well, each in its own way) are taken into consideration. However, the majority of trade with these countries is constituted of products from industrial cooperation and specialization, long-term arrangements thrive for 20 years and form the framework for the planning and development of their respective economic branches in each trading partner country. Despite one-year fluctuations which are the result of either objective or subjective unfavorable economic factors, total cooperation has risen in a stable fashion, and new roads are being explored. The best example is cooperation with Poland: throughout the most difficult circumstances, trade modes were found which will enable an increase in deliveries for the next five-year period at an enviable rate, and which will then exceed total trade with some other countries.

#### Expectations have Changed

Czechoslovakia and East Germany make up a separate group, where trade is conducted by clearing accounts. This year's results must have silenced those prone to believe that the growth in trade with these countries up until now was the result of such accounts, because stagnation, even a fall, in trade with other countries was explained as a shortage of convertible funds for payments. For all this, it must be kept in mind that this does not preclude trade in convertible currency with these two countries. Arrangements have been made with this type of accounting and payment, but the question is whether these arrangements are any more successful than the others. And the opposite as well, of course. Previously it could have been claimed that short-term contracts did not guarantee stability, because a partner could find another buyer or supplier, and could determine whether or not it was better for him to organize his own production of the goods he imports. And if there were more firm contracts for long-term cooperation in the production of certain goods which are durable, or will always be in demand, whether as final products or on the market, fluctuation would be avoided.

Examples of this particularly can be found within the trade structure with East Germany where raw materials and producer goods constitute a significant part of deliveries going both ways; however, both sides want to market goods from the machine-building industry, and Yugoslavia wants to market consumer goods, agriculture products, tourist and construction services, and East Germany especially wants to market machinery, equipment and instruments. Nevertheless, for years talks on cooperation in the automobile industry or any other branch which would be mutually beneficial, have not progressed beyond the starting point. The next five-year plan will move total trade between East Germany and Yugoslavia from third place, where it is now, to fourth and maybe even fifth place among socialist countries.

So far, trade with Czechoslovakia has been the best example of uninterrupted growth, which eludes the question - how can this be when there are very few long-term arrangements or even contracts on cooperation in production. Of course analysts would be able to give a satisfactory answer, but life has shown that such cooperation has a finite, albeit wide scope: 1985 has proven this because trade was less than that planned, which limited the room for

establishing higher growth rates in upcoming years. Certain other circumstances have been revealed: the Czechs are very interested in tourism in Yugoslavia, especially on the Adriatic, but this brings up the question of counter-trade. The Czechs want to pay for tourist services with machinery and equipment, but they want our tourist agencies to guarantee the buyers. On the Yugoslav market, as fragmented as it is, this is very difficult to do ... The situation is just as difficult with construction services.

Trade with the Soviet Union in its entirety is a theme which must be considered separately, but it can be said now that here there also must be changes because ever more critical conditions on the marketplace, stronger competition and new opportunities being offered to the Yugoslav economy will dictate changes in the structure and quality of offers on both sides. Undoubtedly the objective expectations of the Yugoslav economy on the Soviet Union's market have not diminished, and could even be better than before, but they are in a new form and have new contents.

The warnings in the last two to three years which have come with the changes in the conditions of goods and trade services with the member countries of CEMA must be understood as an opportunity to figure on these changes while planning development and to build this lesson into a new strategy.

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ECONOMY

CZECHOSLOVAKIA

EFFICIENCY THROUGH RESEARCH AND DEVELOPMENT URGED

Prague HOSPODARSKE NOVINY in Czech No 45, 1985 pp 1, 5

[Article by Doc PhDr Jaromir Obzina, DrSc, deputy chairman of the CSSR Government and chairman of the R&D and Investment Planning Commission: "Emphasis on Efficiency"]

[Text] The socialist society, especially the European socialist countries, including Czechoslovakia, is now carrying out an extraordinarily important task, the acceleration of progress in R&D and changing the national economy over to the path of intensive development. This is the most immediate strategic goal which was formulated in the documents of the last congresses of the communist and workers' parties of our countries. This political line stems from a realistic evaluation of the results achieved in building socialism and from our capabilities, interests, and needs for socialist construction for the period of at least up to the end of this century. To be specific, in order to achieve this important goal, we must:

- Substantially improve the level of organization of work and increase the social productivity of labor by approximately double;
- Do away with the current degree of technical and technological dependence on the most advanced capitalist countries, which represents a potential danger for our economic and social development;
- Achieve full self-sufficiency in foodstuffs and ensure a substantial qualitative and quantitative growth in the production of consumer goods;
- Develop our own raw materials, energy, and material base on a modern basis;
- Substantially reduce the consumption of materials and energy [by at least 30 to 50 percent] for a given volume of final products.

How is it possible to achieve these goals? Only by intensive development of the international socialist economic integration and intensifying overall cooperation with the Soviet Union. And in our conditions there exist only two actual social sources which will lead to fulfillment of the established tasks, which are utilization of the advantages of socialism and maximum application of science to social practices.

Fulfillment of the established goals which will help to change our national economy over to the intensive path of development is the subject of the main program documents for R&D produced by the government of the Czechoslovak Socialist Republic, which are: Main Directions for R&D up to 1995, with Projections up to 2000; Long-range Overall Program for Application of Electronics in the Czechoslovak National Economy up to 1995; Development Program for the CSSR's Fuel and Energy Base up to 2000 Under Conditions of Reducing the Energy Demands of the Czechoslovak National Economy; Concept of the State Housing Policy for the Eighth 5-Year Plan with Projections up to 2000; Principles of the State Concept of Creating and Protecting the Environment and Rational Utilization of Natural Resources in the Eight 5-Year Plan with Projections up to 2000; and the Long-Range Overall R&D Program and Applications of Biotechnology in the CSSR and Program for Application of Biochemistry and Chemistry in Livestock Production for the Eighth 5-Year Plan with Projections up to 1995.

At the same time, intensive work is being done on an overall forecast of R&D, economic, and social development up to 2010. This is supposed to be completed in 1987 under the supervision of the Czechoslovak Academy of Science.

#### The Need for a Long-range View

Why were such longer-range program documents prepared when it is generally known what complex problems are being encountered in preparing the Eighth 5-Year Plan and in carrying out the national economic tasks for 1985? They were put together for a period exceeding the 5-year plan because the established tasks, the strategic goals, and the demands involved in overcoming the obstacles, errors, and obsolescence in some areas are such that they cannot be resolved at the level of mid-range planning. The other CEMA countries also hold to this view and therefore at the economic council at the highest level in Moscow in June of last year there was also a decision taken to work up an Overall Program of R&D for the CEMA Member States for 15 to 20 Years. Its first version has currently been worked up and negotiated so that this document can still be approved this year and have a practical effect during the next 5-year plan.

In today's situation, it is above all necessary to establish a long-range viewpoint correctly and realistically and to promulgate in material terms the fulfillment of long-range goals and tasks in the proposal for the Eighth 5-Year Plan. But in no case can we create cheap illusions or fall into a state of impasse under the burden of everyday problems.

It would be a serious political error to set up the actual tasks of today and the goals of the long-range future in opposition to each other. The absence of long-range plans and the incompatibility of long-range future tasks with the goals of mid-range 5-year plans, and the annual plans being implemented are the weak points of our management, at least in the field of R&D. "...when one makes great plans calculated for many years," stated V. I. Lenin, "one often encounters sceptics who say, 'Why make plans years ahead? God grant that we can just do what is necessary for today...' We

must know how to bring the two together; it is not possible to work without a plan based on a longer period and on justifiable success." This was also true for us in the reconstruction of the national economy after the war and applied to the period of socialist industrialization and the collectivization of agriculture. We must therefore today lay out our long-range tasks.

The preparation and discussion of the above-mentioned program documents before the 17th CPCZ Congress is an essential and justifiably political procedure for several reasons.

First of all, the program documents form the basis for establishing the objective orientations and trends for future economic, social, and R&D progress, if the national economic planning, departmental, and production sphere elements will take these documents into account, use them as a starting point, support them with personnel and investments, and simply implement them. The thrust of the subject matter of the programs worked out confirms that they are concentrated on the strategic R&D directions and at the same time offer progress for society as a whole on problems of technical, technological, production, and social policies. The program documents testify to the fact that the main method for managing R&D progress after the Eighth Plenum of the CPCZ Central Committee is not regulatory and administrative management by setting norms and making recommendations, but is embodied in research and development programs and their applications results of a production and technological nature. They are subordinated to concern about human happiness, the happiness of the workers, and therefore have a significant social nature. They affect all basic directions of development other than problems associated with ensuring supplies of new materials. This program must be worked out in the near future. Two obsolescent areas of the national economy, storage management and the transportation system, in which more than 2.1 million workers are employed, still remain unresolved.

In managing R&D, we are now concentrating on finding solutions for the lagging areas such as electronics and computer technology; on increasing the rate of introducing robotics, automation, and flexible production systems, and on a broader utilization of laser equipment and composite materials. In research as well as applications, we are ensuring the necessary resources to be able to increase the level and tempo of nuclear energy applications and to economize on the construction of nuclear electric power plants. We are building the essential basis for the development of biotechnology with a goal of maintaining a world-class level and in doing this we want to make full use of the good results of Czechoslovak basic research. We are starting new programs in the field of particle accelerator equipment.

#### What is Important

In carrying out the actual tasks of R&D, we concentrate our attention mainly on fulfilling the established tasks of the Seventh 5-Year Plan in carrying out the state programs of technical development and their application results, especially those of a production and technological nature, in order for us to achieve the planned volume of production on the basis of utilization of R&D results valued at Kcs 66.1 billion. But an analysis shows that these tasks

will not be fully completed, with no residual jobs to be done. However, we will not adjust the established tasks for anyone so as to be able to show 100 percent fulfillment.

We expect that the tasks of the state plan for technical development will be 97 to 98 percent fulfilled and the overall volume of applications results will amount to Kcs 68.9 billion, which is 104.2 percent, but not all departments will meet the goals or in the established composition. We do not consider general fulfillment to be a success. Therefore, after analysis we are evaluating the successful results and taking the necessary actions and recourse where the tasks were not fulfilled.

Today there are already adequate opportunities for moral appreciation of outstanding results with the awarding of orders and decorations, conferring state prizes and the prizes of the State Commission for R&D and Investment Planning, as well as material rewards from awarding a one-time payment for an individual of up to 50,000 korunas, through granting personal salaries to outstanding engineering technical employees with advanced and secondary school educations of up to Kcs 7,500 or 10 percent increases in salary over the established wage scale. Unfortunately, since the work collectives are not sufficiently trained politically, opinions from the period when wages were equalized still prevail in them and these appreciations of contributions to R&D are still rare exceptions in practice. Their implementation depends on the personal courage of the supervisors.

The main form of action applied this year is stopping financing from the state budget or, in serious cases, excluding technical development from the state plan. We are not being overhasty in these decisions since there is no way to work in research without a healthy risk, but also not without responsibility. We therefore make use of punishment only in those cases where there was a deliberate exaggeration of the effects to be expected or understated expenses and, above all, where inadequate management and research work was the cause for not achieving the planned goals.

We consider the second basic current R&D task to be the responsible preparation of proposals for state R&D and state target programs and the overall proposal for the state R&D plan for the Eighth 5-Year Plan. Currently 16 state R&D programs and 14 state target programs have been prepared. In them, the tasks for technical development arising from the approved program documents are made more specific.

What do we mean by responsible preparation of these programs? Above all, this requires concentration of efforts and resources on the execution of the most important tasks; therefore, their number is being reduced by at least 10 to 15 percent in comparison with the figures of the Seventh 5-Year Plan. The established timeframe for carrying out technical development tasks of a production nature will be allowed to reach a maximum of 3 years and technical development tasks of a technological nature can have a maximum of 5 years. The economic standpoint is important and therefore must be shown an actual economic contribution of 4 to 6 korunas for each koruna of investment and non-investment expenses input to the task.

In the Eighth 5-Year Plan, we want to provide personnel and investments to support 1,500 applications results of a production and technological nature from the tasks of the state plan and achieve Kcs 150 billion in production from them [as compared with Kcs 66.1 billion in the Seventh 5-Year Plan]. It is obvious that the level of those applications outputs at the time that they are introduced into production must be comparable with the world quality standards or substantially approach them.

#### Goals of Development

The number of tasks proposed for execution in the state R&D and state target programs in the meantime has increased quantitatively in comparison with the last 5-year plan. If we had accepted all of them, it would have meant a further dispersal of financial, hard currency, investment, and other resources. Many of them do not meet established criteria. The proposed time for execution is unreasonably long. For tasks of a technological nature, it is met as a whole, but for tasks of a production nature in many cases it reaches more than 4 years. We cannot agree with this and therefore we are looking for ways to maintain the established goal. The predicted aggregate efficiency of the resources invested is lower than the established bottom limit for five state R&D programs and four state target programs, that is, Kcs 4 benefit for each koruna of the total expenditure. The production volume from the applications outputs, which is established by directive at a level of Kcs 150 billion, is covered by the proposal.

What can we say about these facts? So far neither results of our management work, nor the activities and initiatives of the preparers, nor those receiving the assignments have led to attaining all the basic requirements. We must therefore improve our work so that in the time remaining we can prepare a definitive proposal of the state technical development plan for the Eighth 5-Year Plan, as social and state interests require. The State Commission for R&D and Investment Planning is uncompromisingly looking for the means to meet the established goals.

However, the capabilities of our national economy are not limitless. In keeping with the development concepts, in the next 5-year plan the main emphasis will be placed on three state target programs: STP 01, Development of the Construction of the Nuclear Power System up to 2000; STP 02, Rationalization of Consumption and Use of Fuels and Energy; and STP 09, Selected Chemical Products. Therefore the resources available for the remaining programs will be limited. In order for us to achieve the goals laid out, especially in the metallurgical and engineering field and mainly in the electronics applications therein, we must in the course of the Eighth 5-Year Plan make maximum use of the resources allocated and prepare an even more important reallocation of resources in the Ninth 5-Year Plan. This is the only way to avoid our interests, requirements, directives, and desires being in conflict with reality. This will be an exceptionally difficult task.

Therefore one cannot impatiently call for what is not yet available. We must make immediate use of all resources which we have for technical development in the priority branches and not wait until all basic demands can be satisfied.

The fact that in the departments of the metallurgical and engineering complex roughly Kcs 4 billion will not be spent of the planned non-investment resources in the Seventh 5-Year Plan deserves even more objective analysis and critical evaluation.

### The Barrier of Regulations

One of the immediate tasks in the creation of good conditions for an accelerated application of the results of R&D in practice is the fight against bureaucratic and administrative obstacles. Capital construction is today governed by 390 regulations at various legal levels [laws, decrees, directives, and ordinances], of which 90 regulations are under the jurisdiction of the State Commission for R&D and Investment Planning; R&D is governed by 90 regulations and 20 of these regulations are within our jurisdiction.

In 2 years, the State Commission has succeeded in reducing the number of norms by several dozen, but there are still hundreds of them. If we are the only ones who carry on this fight against inflation of regulations, we can soon show that the number of them under our jurisdiction has understandably dropped, but this will not significantly affect the situation if everyone is not carrying on the same merciless fight. For the Eighth 5-Year Plan, the State Commission for R&D and Investment Planning is preparing a legislative program for a vigorous reduction of all legal norms which were issued under its authority and under the authority of the former ministry, as well as codification and amendment actions. It is necessary for the other departments to develop decisive efforts to reduce the number and increase the quality of regulations so that each reduction does not have to be pushed from a position of political power, since so far all other types and appeals have not lead to material results, as the above facts show.

From the characteristic features given above, it can be seen what further tasks lie before us in building a developed socialist society and what their specific content is in order for us to demonstrate the advantages of socialism over capitalism in all facets and on a global scale, as well as on the level of every individual country. What is the specific idea behind this task? Even though we have surpassed capitalism in the political, social, and cultural educational fields, even though we have achieved a strategic military balance on the global scale and the leading edge of science and research in many areas, at the current historical stage there stands before us, with all its demands, the task of preserving world peace and achieving superiority in economics. In today's situation, along with the struggle to maintain world peace, Lenin's words from a program of more than 60 years ago sound even more convincing than at that time: "Today we influence the international revolution mainly by our economic policies...The fight has been brought to this battlefield on the global scale. If we can carry out this task, then we will have definitely and decisively won on the international scale."

To achieve this goal requires that we demonstrate in the shortest historical timeframe the overall advantages of socialism on a global scale, not only over capitalism as a whole, but most of all over the seven most advanced

capitalist countries of the world and at the same time thus rid ourselves of the remnants of technical and technological dependence on those countries.

We must therefore be fully aware of the total seriousness and demanding nature of the established goal and also the fact that it is a program goal of the world socialist society which has a long-range, historical nature spanning at least several decades. The gravity of this task demands that we proceed with its accomplishment without any delay whatsoever, since the time factor itself is one of the decisive criteria, and furthermore that we be aware of the fact that under current conditions it is possible to achieve it only through development and application of the results of science and the highest quality technology and equipment in social practices and particularly in production. Without this, there are no paths on the global scale to a definitive victory of socialism and to communist prospects.

Starting from this strategic goal of the world socialist society, we here in the CSSR derive our share of this task and set for ourselves the most immediate goal for the relatively short period of the next 5-year plan, which was expressed by comrade Gustav Husak at the 7th Plenum of the CPCZ Central Committee by the words: "If we want to maintain our position as an industrially developed country, we must achieve the world quality standards in production, or at least approach it to the maximum degree possible...Each of us bears his share of the responsibility and is obliged to compare his results with the world level of standards, to make use of the best experience from the socialist countries and the entire world, and to adjust production flexibly to the demands of the domestic and foreign markets."

This specifically means taking our place on the economic level among the first two dozen countries out of the more than 200 states in the entire world.

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ECONOMY

CZECHOSLOVAKIA

METALLURGY, HEAVY ENGINEERING RESULTS REVIEWED

Prague HOSPODARSKE NOVINY in Czech No 45, 1985 p 2

[Article by Jan Mara, employee at the Czech Communist Party Central Committee: "Metallurgy and Heavy Engineering"]

[Text] This year in August the Federal Ministry of Metallurgy and Heavy Engineering worked out the principles of the socialist competition "First to the Goal in Fulfilling the Tasks of the Seventh 5-Year Plan", for which economic production units and enterprises have signed up. This competition is a suitable means of augmenting and bringing up to date the socialist obligations for successfully meeting the operational plan for 1985. With its help, the department in 9 months achieved good partial fulfillment of the annual task in individual indicators. In the production of goods this was 76.1 percent, labor productivity 76.7 percent, in adjusted value added 76.4 percent, and in gross production 75.9 percent.

The production of goods was exceeded by Kcs 597.6 million, which means 105.5 percent of the goal and at the same time achieving the original intention. Seven VHM's [economic production units] achieved a minimum 76 percent share of the entire year; these were the Bratislava Ore Mines and Magnesium Plants, Prague Iron Works, Kladno Metal Waste Industry, Prague Metal Works, Vitkovice, Brno Chepos, and Olomouc Sigma. Other economic production units showed a relatively higher share. This lead makes it possible to pay increased attention to quality, product mix, etc. at the end of the year.

The number of enterprises not fulfilling the plan for goods production in the above period dropped to five. These are krag enterprise Poprad Vogonka [shortfall of 10.2 million korunas], national enterprise Pardubice TMS [down Kcs 4.6 million], national enterprise Chotebor engineering work [down Kcs 4.4 million], and national enterprise Libcice Screw Works [down Kcs 0.7 million]. Production tasks were exceeded for coke by more than 100 kt, raw iron by 62 kt, rolled steel material by 40 kt, and pipes by 12 kt. The level of the plan was not reached in the production of raw steel.

The plan was exceeded by Kcs 477.2 million [101.1 percent] in adjusted value added, with a growth rate of 105.5 percent. All economic production units are contributing to this. Of the enterprises, Trinec Iron Works, Snina Vihorlat, Ceska Trebova Signa, and Velvary Metal Works did not keep up with these indicators.

Good results were achieved in the productivity of labor from adjusted value added and the tasks were exceeded, to which all VHJ's contribute.

By the end of August, 23 enterprises had not met gross production goals. The largest shortfalls were those of Trinec Iron Works, Plzen Skoda, Snina Vihorlat, the First Brno Engineering Works, Blansko CKD, and Poprad Vagonka. Metallurgy was short 1,655 [0.8 percent] and heavy engineering 1,340 [0.5 percent] of their workers, while the planned personnel level was not achieved in even one economic production unit. In heavy engineering, VHJ's Olomouc Sigma [101 percent], Poprad Czechoslovak Railcars [100.2 percent], and Milevsko Czechoslovak Air Technology Plants [100.4 percent] had higher average personnel levels. The greatest shortage of employees is in the VHJ's Kladno Metal Waste Industry and Prague CKD.

The overall forecast for the end of the year is favorable, despite the fact that determining some indicators will be difficult. This involves in particular meeting deliveries for investment in the VHJ's Plzen Skoda, Prague CKD, Brno Chepos, and Olomouc Sigma; exports to socialist countries in VHJ's Plzen Skoda, Olomouc Sigma, and Brno Chepos; in exports to nonsocialist states in VHJ's Vitkovice and Plzen Skoda; in adjusted value added in Bratislava Ore Mines and Magnesium Plants, Kladno Metal Waste Industry, Milevsko Czechoslovak Air Technology Plants, and Prague CKD; and in profits at the Iron Metallurgy Works, Plzen Skoda, and Brno Chepos.

In deliveries for investment, it is predicted that the annual plan for 1985 will be exceeded by Kcs 670 million and for domestic trade by Kcs 16 million, in exports to socialist states by Kcs 151 million in freight prepaid prices, and exports to nonsocialist countries by Kcs 307 million in freight prepaid prices. Goods production should be exceeded by Kcs 955 million by the end of the year and gross production by Kcs 630 million, productivity of labor from adjusted value added by Kcs 944 million, and internal capital construction by Kcs 23 million.

Adjusted value added should achieve better results by Kcs 358 million and profit by Kcs 474 million. Work on important tasks in the state plan is threatened because of changes which took place in the organization of several construction projects. Efforts must be developed while maintaining the planned limits on supplies.

In the last quarter of the year, there must be intensified efforts from the economic production units to provide deliveries and work for important tasks of the state plan in VHJ Plzen Skoda, in exports to socialist countries in freight prepaid prices in Prague CKD, in productivity of labor from adjusted value added in Olomouc Sigma, and in internal capital construction in VHJ's Plzen Skoda, Vitkovice, and Olomouc Sigma. During this period VHJ Prague CKD must make improvements in adjusted value added, as well as in profits and in the proportion of overall expenditures to one koruna of output.

The management of the Federal Ministry of Metallurgy and Heavy Engineering have discussed accomplishment of the tasks by the end of the year with

the general managers of the economic production units. Target prospects have been worked up for the individual indicators. Emphasis is being placed on the qualitative indicators and also on the product mix with a goal of improving the material technical supply to the other branches and the internal engineering and metallurgical complex. Some deficiencies in deliveries from the electrotechnical industry are being resolved.

From the standpoint of the original intentions of the Seventh 5-Year Plan, the department appears to be fulfilling all indicators other than exports to nonsocialist countries, although the balance with them remains favorable. The demanding task of the next period is to achieve higher export capabilities and also foreign trade efficiency, especially in improving the quality and use value of the products produced. It is essential to raise the level of research and development, mainly in applying its results to production.

Currently the annual membership meetings of the basic organizations of the Czechoslovak Communist Party are taking place and connected with them there are also the discussion of the plant-wide conferences in the plants, enterprises, economic production units, and ministries. In addition to an evaluation of work in the past period, the goals for party work in the forthcoming years will be laid out. In the field of the party's economic policy, tasks will be established for 1986 and the Eighth 5-Year Plan. And at the same time throughout the department, pre-congress activity is developing with a goal of propagating greater efforts and responsibilities in carrying out tasks in the spirit of the conclusions of the 15th CPCZ Central Committee Plenum and strengthening the process of intensification.

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ECONOMY

CZECHOSLOVAKIA

## ABILITY TO COPE WITH INDUSTRIAL CHANGE QUESTIONED

Prague HOSPODARSKE NOVINY in Czech No 45, 1985 p 3

[Article by Prof Eng Jaroslav Nykryn, DrSc, High School of Economics in Prague: "The Rate of Change is Increasing...Can We Keep Up?"]

[Text] Among the basic characteristics of the production enterprise in the Czechoslovak economic system are a relatively high export quota and an orientation predominately to engineering production. As the recent editorial discussion [HOSPODARSKE NOVINY No 31, 1985] confirmed, the development of such a production subject is a given under the constantly stronger pressure of the world research, development, production, marketing, and intellectual trends and with the influence of intensifying socialist economic integration of science and production; one can even predict that there will be a continuously stronger impact on it by the external economic environment, which has a direct or indirect effect to a given degree on its position, capabilities, and tasks. The purpose of this article is to point out some changing features of the above-mentioned environment from an overview of Czechoslovak production. The focus of this intention is the trends in world engineering. The author considers a comparison with them to be a start in resolving the problems of intensification of the economy.

The saying that "changes can be accepted as the normal state" which one previously could run into at international conferences obviously is valid for the world economy even today, but with one addition: the rate of change is generally accelerating. The cycle is getting shorter between the invention of products or production procedures and their commercialization or application to production. As a consequence of this, the delivery schedules are also getting shorter. The accelerated tempo is also altering the product mix and not only for technically simple consumer goods, but also for expensive production tools, machinery, and equipment. The changes are particularly rapid in the offering of goods in the most particular foreign markets and in submitting innovations. The previously gradual developmental curve of product market life is changing its shape into the form of steep arcs since in this cycle the phase of market saturation is rapidly transformed into the stage of technical, moral, and psychological obsolescence and extinction from the market.

Market viability is getting shorter most rapidly for those products which are the most demanding of research, development, and direct application of science in general. An example is computers or electronic and electrotechnical groups of products. A typical change is represented by reduced product size in a number of fields; metric hundredweights are changing into kilograms. In some types of products with miniaturization technology, kilograms are even changing into grams. The rate of innovation is increasing in a wide variety of directions and fields: in production, in consumption, but also in the organization of enterprises and their management, in personnel training, and similar ways.

#### The Criterion is the Absorption of Science

The economic performance of the industrially advanced countries today depends more and more on changes in the inputs to the production processes; in modern economies, even more important than raw materials, materials, energy, and labor is scientific and technical information, and this is true not so much in the actual process, as in the area of research, development, and design. The main factor in the performance of the individual economies as it appears and is demonstrated in export capabilities is thus the level of effective absorption of scientific and technical progress in the production process.

It is impossible not to consider the rapidly spreading changes in the proportions of the overall economic energy expended in the individual phases of activities by the leading enterprises in the industrially advanced countries. It is also worth mentioning in this connection that "leadership" is far from connected with the size of the enterprises; in fact, it appears that the most effective and highest performance companies are today not at all the giants like the American General Motors or the Japanese Mitsubishi, but rather medium-size or even "small enterprises, but ones which are highly specialized. While previously the production phase consumed the greatest share of inputs, currently -- and this will be even more true in future years -- there is a change taking place which is characterized by the following ratios:

- research, development, and preparatory phase ....35 percent
- actual production .....25 percent
- sales activities, service, consultation service..40 percent

Apparently unnoticed, but nevertheless actually with great emphasis, changes are thus spreading in the approaches to the tasks of entire national economies and individual enterprises as well, both in the capitalist and in the socialist countries. Their common denominator is global-level thinking.

This is also necessary in our economics and for Czechoslovak enterprises, mainly engineering. If we look for the central point of our economic problems, it can be seen in the increasing level of its intensification.

But if we want to find a solution to this question, we discover that a "start" or the priority for this effort must be the internal economic relationships and export performance. The center of attention must therefore be increasing the technical level and quality of Czechoslovak products and the degree to which they approach the world standards. Our production and foreign trade workers must be aware of the need for continuously confronting the world, world production tendencies, and the production and manufacturing policies of the leading producers. These are not always just the Japanese, the Americans, or the West Germans, but in many cases Soviets, Hungarians, or East Germans as well. One must emphasize the feeling of needing to compete internationally; where it does not exist, development is stifled and must be stimulated by other effective economic measures.

#### The Global Trends: Engineering

In the next 15 years, the tendencies toward internationalization, integration, structural changes, and specialization will spread to an increasing degree in global engineering production in particular.

1. The trends toward internationalization and integration mutually affect and supplement each other and are based on the development of science and technology. On the other hand, science and technology affect internationalization and integration. The development of these processes has certain common features and the same or similar external forms, but their social economic content depends on the nature of the social order.

In capitalism, the role of science and technology in the production processes will unquestionably grow in the next 10 to 15 years. But in the capitalist economic system, their exploitation leads objectively to some consequences which cannot be controlled by society. One of these can be the growth in unemployment. Internationalization of science and production under socialist production relationships provides extraordinary opportunities. This fact, so far insufficiently recognized and theoretically developed, represents an important unused resource in the intensification of the CEMA economies and society as a whole.

2. The tendency toward structural changes is one of the internationalization and integration factors, especially in engineering production. Their global development is especially important for the creation of a concept of engineering production in the CSSR. We will therefore point out the most common changes expected in the main fields and in the related or influential branches of industry.

In ferrous metallurgy, which has probably achieved its high point of development [even though not long ago it was one of the key branches], the production of continuously poured steel will grow rapidly. Its consumption will remain steady or drop due to the highest production qualities, anticorrosion properties, and other technical improvements. Blast furnaces are on the way out and according to some predictions they should be taken out of operation in the leading economic systems within 5 to 7 years. The Japanese, it appears, are showing the way, as they have already gotten rid of them. The gradual cancellation of some export-oriented metallurgical projects in the developing countries is also not without interest.

The key question for nonferrous metals throughout the world is the energy costs for their production. Thanks to new materials, the consumption of some colored metals will drop [aluminum, copper, tin, lead]. Newly discovered Australian deposits of copper, zinc, tin, lead, nickel, titanium, and manganese have become the subject of the interest of supranational corporations. Countries, such as Zimbabwe, Zaire, Zambia, and Gabon, have joined in the competition.

Electronics is at the center of attention of economists, including in Czechoslovakia. One must appreciate that here as well we have taken important measures in the institutional and organizational field. According to predictions, by 1990 and beyond the rate of development of electronics will be the most rapid of all the industrial fields. It will be one of the largest industrial branches of the advanced economic systems and will have an influence on structural changes in the entire global economy. This is certainly true of the USSR, the GDR, Hungary, and other socialist countries, including the CSSR. Should there be a reduction in the arms programs in which electronics plays a dominant role, together with a growth in competition on the world markets, it could lead to the transformation of entire sectors of electronics into civilian production. Optical electronics appears to be the most dynamic "within" the electronics fields. In the foreseeable future, it can be expected that there will be further marked reductions in prices, especially for microelectronics components.

In the engineering of production equipment, an accelerated transition is taking place from the production of machine tools to shaping machines and efficient flexible production systems based on robotics. According to UVTEI estimates, the share of shaping equipment around the year 2000 will amount to at least 33 percent in global production. These tendencies are also well known here, but suitable conclusions are not always drawn. This applies to the transition from NC to CNC machinery and the replacement of transistors with integrated circuits. The process of robotization will progress rapidly.

The other engineering fields will show even more significant acceleration of technical progress and a further improvement in products with applications in the chemical, wood processing glass, ceramics, textile, leather, printing, and foodstuffs industries. The progressive mechanization, use of chemicals, and intensification of agricultural production in general will rapidly affect the applicable engineering production. This is also true for gaining control of the genetic processes.

3. The tendency toward specialization of production is getting stronger within economic systems and on the international scale. This is not at all a subjective, but rather an objective process. The time of "universal" producers is long since past, even though we have not reached a time of "single-time" producers. The reverse tendency of the marketplace opposes the specialization trend in production. We could designate it as despecialization. In a certain sense of the world, demand is working in opposition to production. The customer, who is the boss on the world markets,

demands a comprehensive and complete offer and not an offer of individual parts. In the case of a need for a certain complex of machinery, he does not like to turn to several specialized manufacturers. He gives priority to an overall offer from one place. This conflict between production and the market is handled by trade by the product mix function. It is substantially the capability of the supplier [the producer or the middleman] to change a scattered product inventory into a consumable or usable inventory. Recognizing this function makes it possible for the progressive supplier to deal better with the customer's demands [and more comfortably].

The product mix function of trade, and the Czechoslovak organization of foreign trade, including the field of engineering, has the optimum conditions for its application, in my opinion is not adequately exploited in our conditions.

#### How to Keep Up With the Competition?

All of the above factors and trends in world-wide engineering lead to a growth in competition in the foreign markets. It is getting sharper not only in the so-called tough markets, but currently in the less demanding markets as well. The difference is only that in the second category of markets, usually less advanced [developing] countries, the competition is getting sharper in other types of engineering products.

From this fact, one can conclude that our production policy must be oriented in two directions, to the most demanding market and to less demanding ones. This is not an easy task. If we consider the position of Czechoslovak engineering in the course of the last 2 decades, we discover an important fact: 20 years ago, the CSSR was one of a small group of about 25 countries with significant engineering production, but also part of an even smaller group of approximately 15 important engineering producers has roughly tripled to 75 countries and there are about 2.7 times as many [about 40 countries] leading exporters of machinery in the world. As a consequence of this, our exports, which are now meeting with increased competition, have become much more difficult.

The referenced acceleration of the rate of change has led and will lead to an important phenomenon in engineering from which one must draw conclusions in researching foreign markets: the focal point of actual competition today cannot be found in the market. It has shifted over to research and development, into the R&D laboratories, and to areas of actual [never just apparent] innovations. To study the market, demand, or just competing offers is not enough. In a certain sense of the word, it is *ex post facto* activity. Our manufacturers and marketing people must deal rather with research *ex ante*, research on the needs from which the actual demand stems. For example, research into the needs for processing metals confirmed that future needs will be for more shaping machines, and not for machine tools. Now it is extremely important to study the future development of shaping needs. The relevant questions cannot be answered just by looking at the competing machinery which is today being built or even already routinely sold. It is possible to arrive at it only by fundamental research of the need. This is

obviously much more demanding and also more expensive than simple research of the foreign markets. It requires the most skilled approach, thoroughly trained professionals, and good organization. Patent searches can be one of the promising paths in this regard. Direct cooperation in research and development with advanced foreign partners is another possibility.

One can say in conclusion that the starting point for increasing the export performance of Czechoslovak engineering must be a clarification of the basic orientation of capital investment policy, forming the basis of the future composition of the production branches, especially on the basis of their coordination in the CEMA alliance of countries in the sense of the economic council at the highest level [1984] and as far as the Soviet Union is concerned, the Program for Long-Range Economic and R&D Cooperation between the CSSR and the USSR up to the Year 2000. This step should make it possible to delegate more responsibility and authority to the middle level of management to the appropriate degree for the formation of specific production programs [along the line of microstructural changes] and to do this in close cooperation with the foreign trade engineering organizations. It is likewise necessary to optimize systemic measures in management, planning, organization, remuneration, and the field of justifiable economic incentives. Suitable deployment and maximum utilization of the capabilities of our workers, technicians, and engineerings should also lead to higher export capabilities.

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

## STOPH EXPECTS 4.4 PERCENT INCREASE IN 1986 NATIONAL INCOME

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 30 Nov 85 p 13

[Article by Gz, datelined Berlin, 29 Nov 85: "GDR Strives for 4.4 Percent Economic Growth"]

[Text] On Friday last, the GDR People's Chamber discussed and enacted the economic plan and the state budget plan for 1986. The new Five-Year Plan (1986-1990) will begin next year but is not to be formally enacted until after the discussions at the April SED Congress. The new figures clearly show that the SED does not at the moment see any necessity for setting new emphases in its economic and fiscal policy. Instead it believes that it will be able to continue the line that has been successful from the party's point of view. Premier Willi Stoph spoke of a "major upswing" for the GDR national economy; considerable "plan advances" were said to have been achieved in the current year. By the end of October, for example, 7,784 more housing units than planned had been readied for occupation, and agriculture had recorded the largest harvest ever.

The GDR aims to maintain its relatively fast rate of growth in 1986. The "produced national income" (a term used in the GDR) is to rise as planned by 4.4 percent in 1986, just as in 1985. At the same time, labor productivity in the sphere of the industry ministers is to grow more than hitherto (taking costs into account)--by 8.1 percent compared with 7.1 percent planned for 1985. Rates of increase for sectors close to the general public such as retail trade turnover and net cash incomes of the population remain unchanged at 4 percent, while foreign trade turnovers are planned to rise by 5 percent, that is less than the 8 percent growth rate of 1985. It is very evident that the GDR will have to continue raising raw brown coal output: From 298,000 tons to 314,000 tons. It is also notable that the production of components for microelectronics is set to rise from 85,750 to almost 100,000. The GDR still has much to catch up in the production as well as the use of these new control components.

In 1986, too, the GDR needs to spend an increasing proportion of its budget on stabilizing prices for basic commodities and fares. The amount earmarked for these purposes will increase next year by 13 percent, from M40.9 billion to M46.2 billion. This accounts for approximately 20 percent of the total budget, the volume of which is to grow by only 3.56 percent, from M254.7

billion to M263.8 billion. The GDR is now able to raise the amounts available for investments slightly more than last year. In 1984, M56 billion were invested, and the same amount was planned for 1985. In 1986, the plan envisions M63.1 billion, a 12.7 percent rise compared with 1985. The expenditure shown for "national defense" (M14 billion) and "public security, the administration of justice and the security of the national border" (M5.4 billion) involves a 7.7 percent raise. Price supports for capital equipment for farms are on the decline. Larger amounts are available for housing construction (15.4 billion instead of 13.2 billion) and for the maintenance of roadways.

Agriculture is called upon to "repeat and stabilize" its relatively satisfactory performances of 1984 and 1985 and to overcome unwarranted differences in performance. The industrial combines are admonished to expand their ability to flexibly respond to new challenges and to quickly carry out the necessary renewal of their product ranges. Lastly, we read, the working conditions of the working people are so to be organized according to the plan as to encourage pleasure in work, readiness to give of one's best, scientific-technological creativity and collective innovator activism as well as the working people's efforts to achieve the best possible performance, to maintain safety and discipline.

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## ECONOMY

## GERMAN DEMOCRATIC REPUBLIC

## POLITBURO'S JAROWINSKY FAVORS CONSUMER SERVICE, PRICE OPTIONS

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 25 Nov 85 p 13

[Article by Gz, datelined Berlin, 24 Nov 84: "The GDR Intends to Make the Price System More Flexible"]

[Text] "All in all, our national economy has done well; the hitherto greatest upswing in town and country has been achieved on the basis of sound growth." That is a statement by Werner Jarowsky, SED Politburo member competent for "trade and supply," to the SED Central Committee--a week before the GDR People's Chamber is set to enact the new economic plan. He said it had been decisive that "a fundamental switch to comprehensive intensification" was accomplished, which meant more and cheaper production using fewer raw materials. By end October, the national income had recorded a 4.5 percent rise by comparison with the previous year. Many combines had improved labor productivity by more than 10 percent. However, other combines still did not make sufficient efforts to lower costs.

Successes were reported to the Central Committee from almost all spheres, for example with regard to the shift of transports from road to rail, the construction industry and foreign trade. By end October, the balance of trade had registered a "significant export surplus" in trade with both the socialist and capitalist countries. Retail turnover and net incomes of the population showed smaller growth rates (3.5 percent to 4 percent). However, according to Jarowsky, the consumption of dairy products, fruit and vegetables, chocolate products and coffee had climbed steeply. "Our table is well provided and will continue in this manner."

According to Jarowsky, the planning system is to be improved in a manner which might be described as a kind of fine tuning. The goal is that of motivating the individual and the combines to greater performances. In the absence of genuine market prices, for example, price formation in industry is to be "perfected," in particular by price surcharges for modern products and discounts for obsolete items. In general, it is intended to award the "Q" quality mark for a limited period only--2 years; in the case of fashion goods, the quality mark will be valid for only one season. Surcharges amounting to 2 percent may be granted for "top design achievements."

The Politburo was compelled once again to concern itself with the inadequate supply of replacement parts. Output is to be raised "considerably faster" than hitherto. Some wishes remained unfulfilled with regard to supplies of consumer goods. Private craftsmen and traders are to get "extensive encouragement." Trading permits should be issued "unbureaucratically." Cooperation between industrial combines and science has remained a weak point. Cooperation is to be much closer. Money for research, for example, is to be tied to contractual performances on the basis of agreed prices. The Jena Carl Zeiss Combine was cited as an example of good cooperation.

The Politburo is pleased with the good harvest. The systematic replacement of cereal imports was considered a success. Since "cooperation" between the specialized cooperatives of crop and livestock production has succeeded in many cases, all cooperation councils are to assume "economy managing functions" from 1986 on. Comments on the operation of the 14 existing "agrarian-industrial associations" were rather more restrained. Some of these associations cultivate more than 30,000 hectares. The Politburo called for the "broader democratic codetermination of cooperative farmers regarding the utilization of the cooperatives' own resources."

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

## NEW DECREE PROVIDES COMBINES WITH PRODUCTION FUNDS LEVY

East Berlin SOZIALISTISCHE FINANZWIRTSCHAFT in German Vol 39 No 6 (signed to press 21 Oct 85), pp 2-3

[Article by Erhard Krause, section manager, State Planning Commission: "On the New Decree on the Production Fund Levy"]

[Text] On New Regulations to Be Observed by Combines and Enterprises for the Planning, Calculation and Payment of the Production Fund Levy

The production fund levy as an item of economic accounting in nationally owned combines and enterprises has proved its worth in GDR business practice for the past 20 years. As we know, its stimulating function means that improvements in the management of fixed assets and material stocks result in lower production fund levies and, therefore, higher net profits. In the conditions of comprehensive intensification we are particularly concerned to encourage the modernization of fixed assets in connection with ongoing repairs, the long-term and multishift operation of capital equipment in the reproduction process, the punctual and even earlier initiation of rationalization aids in the combines. The new decree on the production fund levy (GBI I/1985 No 13) responds to these concerns. It is one of the measures designed to enforce the fixed asset and investment policy for the 1980's.

The following are the main novelties:

1. The Production Fund Levy Is Charged on the Net Values of Fixed Assets (Article 3 Paragraph 1 of the Decree)

By contrast to the former calculation of the production fund levy on the basis of the gross values of fixed assets, the following new and special aspects arise:

-- If combines and enterprises respond to the national need for longer use of existing fixed assets in the reproduction process and steadily modernize them, the new basis of calculation (net value) means that the production fund levy is reduced according to the duration of use and the increasing depreciation of the fixed assets, and that net profits therefore increase. Consequently, no production fund levy is charged for completely written off fixed assets still used for manufacture. In future, general overhauls will

not increase the net value of capital equipment either, and such equipment will therefore not be liable to the production fund levy.

-- Needed investments must be linked to top scientific-technological standards and therefore result in significantly greater efficiency by comparison with existing capital equipment. The new decree on the production fund levy reinforces this national requirement by imposing a higher production fund levy on new capital equipment, because--at the time of initiation--the net value of the fixed assets still corresponds to the amount of the gross value. In future, therefore, combines and enterprises will have to impose even greater demands on the efficiency of investments.

According to Article 3 Paragraph 1 of the First Implementing Regulation to the Decree on the Production Fund Levy of 9 May 1985, the production fund levy is payable for existing capital equipment as per the beginning stock at net value on 1 January of the respective year. With regard to the production fund, therefore, the reduction of net values by depreciations within the plan year does not take effect until the following year. This method of calculation was made mandatory for all combines and enterprises as a means of simplification, because not all of them have the EDP facilities necessary for quarterly ascertaining the average net values of capital equipment without involving greater administrative costs.

In the case of newly arrived capital equipment, the production fund levy is payable for the initial net value, proportionate for the months from their arrival to the accounting period; in the case of the retirement of fixed assets analogously for the months from the beginning of the year to the retirement of the capital equipment.

In the case of stocks of investments from the date of planned initiation as well as for investments not yet completed, the same percentage rate of production fund levy is to be applied as for fixed assets, not the one for material stocks. Consequently the same rate of production fund levy is applicable from the beginning of the investment activity up to and including the use of an investment as capital equipment in the reproduction process.

## 2. Own Manufacture of Rationalization Aids in the Combines Is Encouraged More (Appendix to the First Implementing Regulation to the Decree)

To further encourage the interest of combines and enterprises in their own manufacture of rationalization aids, it has been provided for the capital equipment used by the combine and manufactured in its own rationalization aid construction to be exempt from the planning and payment of the production fund levy in the year of its initiation and for 2 calendar years thereafter. It is pointed out, in particular, that, in the case of complementation by modernization subassemblies, only the self-produced and added rationalization aid is exempt from the planning and payment of the production fund levy in the year of initiation and for 2 more years.

To encourage the use of rationalization aids manufactured within the framework of regional rationalization, the Second Implementing Regulation to the Decree

on the Production Fund Levy of 17 October 1985 states the following: Exempted temporarily from the planning and payment of the production fund levy--analogous to own manufacture--are such activated rationalization aids as were produced within the framework of confirmed regional rationalization measures by an enterprise producing rationalization aids in the respective (or neighboring) region. This is intended specially to assist rationalization in VEB's of the local supply business as well as VEB's of district managed industry.

3. The Production Fund Tax Is Payable on the Actual Average Stock in not yet Completed Investments (Article 3 Paragraph 1, First Implementing Regulation)

The efficiency of future capital equipment is decided even in the stage of the preparation and implementation of the investment. It is imperative to carry out the investment as planned, if possible ahead of time and at lower than planned costs. That is why the basis of calculation of the production fund levy for not yet completed investments was changed from the earlier planned stock to the actual stock. As a consequence, a higher than planned production fund levy is payable when the planned investment costs are exceeded in the course of investment implementation. It is therefore more advantageous for the enterprises to observe or keep below the planned investment costs in the entire phase of investment implementation. Just as before, early initiation is encouraged by only requiring payment of the production fund levy from the date of the planned initiation. However, the following exception needs to be observed:

If a planned investment is not carried out or is delayed beyond the plan, the provision regarding payment of the production fund levy on the actual stock of not completed investments would have the result that a lower than planned production fund levy would be payable. An above plan profit earned thereby may not be allowed. That is why Article 3 Paragraph 1c of the First Implementing Regulation to the Decree provides that in such cases the production fund levy must be paid as hitherto on the planned average stock of not yet completed investments.

4. An Additional Production Fund Levy in the Amount of 6 Percent Upon Nonobservance of the Normatives of Time Utilization of the Equipment Is to Be Calculated and Paid Half-Yearly (Article 3 Paragraph 3, First Implementing Regulation).

Earlier experiences have taught us that the one-time payment of this additional production fund levy at the end of the year elicited inadequate initiatives in the enterprises for the observance of the normative of time utilization until the end of the year. That is why provision was made for the half-yearly special calculation and payment of the additional production fund levy. The half-yearly ascertainment of actual time utilization and the payment of an additional production fund levy is to relate only to the respective half year of nonobservance of the normative of time utilization stipulated in the plan. It follows that:

-- No refund of the additional production fund levy paid for the first half year is due upon observance of the normative at the end of the year.

-- Upon nonobservance of the normative at the end of the year, an additional production fund levy is payable only for the second half year, provided the normative was observed in the first half.

It is possible generally to differentiate the normatives of time utilization for the half year while safeguarding the annual normative. The management organ responsible for fixing the normative is entitled to do that. A justified differentiation must be fixed with the state plan targets for the implementation of the annual plan.

Though the additional production fund levy is payable only at the end of a half year, the collectives should be informed at more frequent intervals (at the time of competition appraisal), about the status of the observance of the normatives of time utilization and the possible additional production fund levy involved.

The net value of the respective capital equipment is also to be the basis of the calculation of the resulting additional production fund levy. This backs up the economic objective, especially with respect to the multishift use of the new and modern plant and most important production equipment.

Even when the planned percentage rate of the production fund levy for capital equipment and material stocks has been temporarily fixed below the normal rates or waived altogether, the respective enterprises must pay an additional production fund levy in the amount of 6 percent as per Article 3 Paragraph 3 of the decree. Payment of an additional production fund levy is waived for capital equipment exempt from the planning and payment of the production fund levy as per the appendix to the First Implementing Regulation, No 1.

The new regulations on the production fund levy demonstrate that it is beneficial for the profit earnings of combines and enterprise if fixed assets and investments are used for the greatest possible economic efficiency in accordance with the economic strategy of party and government, and if efficiency losses are not tolerated from the very beginning. Savings of production fund levy payments by exceeding the plan targets for fixed asset and stock management result in higher net profits, enabling the combines and enterprises to carry out larger transfers to the premium fund and performance fund, even in excess of the normative of participation in above plan net profits.

The Decree on the Production Fund Levy of 9 May 1985 represents another step in the implementation of the Tenth SED Congress resolutions: "So to further develop economic stimulation as to help along the tasks fixed in the plan for the greatest possible growth of the national economy's performance, productivity and efficiency."(1)

#### FOOTNOTES

1. "Direktive des X. Parteitages der SED zum Fuenfjahrplan fuer die Entwicklung der Volkswirtschaft der DDR in den Jahren 1981-1985" [Tenth SED Congress Directive on the Five-Year Plan for the Development of the GDR Economy 1981-1985], Dietz Verlag, Berlin 1981, p 88.

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

# LONG-TERM AUTOMATION PLANS SET PRIORITIES FOR COMBINES

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[Text] It is decisive for successfully carrying on the course of the principal task with its united economic and social policies to "keep at comprehensive intensification, and this on long-term."<sup>1</sup> The new phase, defined thereby, in the implementation of the economic strategy issued by the 10th SED Congress relies primarily on the grown economic and social productivity of scientific-technological achievements in all economic domains. That gives rise to qualitatively new requirements for the management and planning of scientific-technological progress. Thus it is all the more important thoroughly to analyze the already available experiences of the enterprises and combines in their purposeful economic and social orientation to scientific-technological progress and to seek still more advanced and effective solutions.

That makes clear that the advances made depend essentially on a higher grade of long-term conceptual work in the scientific-technological sphere and its being linked resolutely with practical management activity.

## New Demands Made on Long-Term Conceptual Work in the Scientific-Technological Sphere

Many practical experiences demonstrate that long-term conceptual work in the scientific-technological sphere has become a major chain link in effectively combining science with production, mainly in integrating complex innovator processes with the reproduction process in the combines.

In this phase of scientific-technological work, which immediately precedes the R&D process, important preliminary decisions are made in selecting those basic

scientific-technological directions through which the future performance and efficiency growth is meant to be ensured. Already there then far-reaching decisions are made about the level of requirements for the science and technology plans and the tasking workbooks that will later become possible.

There also simultaneously the entire reproduction potential of the combines begins to take shape, the orientation of all material, financial, and personnel resources of the combines to permanent and high performance improvements. The grown urgency and complexity of long-term conceptual work in the combines mainly follows from the need to cope with the dynamics in our economic development under the new conditions of comprehensive intensification by means of the socialist planned economy. The following elements then come to the forefront:

First: The current rate of the scientific-technological revolution leads to extraordinary dynamics in productive forces development. Consequently, the rate of production substitution increases, and the turnover rate from one generation of products to the next shortens in many sectors. With it, the economic and social effects of science and technology reach into a much more distant future. Fully tapping the effective potentials of, say, microelectronics or bio-technology takes decades, through which not only today but over the long run the effectivity growth and the changes in the substance of work are being affected. Both trends are simultaneous--the shortening of reproduction cycles for technological innovations and the time horizon of their effectiveness; initially contradictory demands made on the social control over innovator processes arise from them.

Important inferences can be drawn from that for selecting the main profile-determining scientific-technological developmental trends, which must be such that they will objectively also facilitate a high substitution rate, through which then in these very fields qualitative turning points can indeed be made to take place in our scientific-technological development.

Especially in the more recent past, in the combines and on the central state level considerable advances were made, compared to earlier periods, in the substantive conceptual work in the scientific-technological sphere. Yet in part such conceptions make the overall scientific-technological progress appear as an endless chain of successive small steps, specific changes, and an always foreseeable sequence of generations of products.

Yet if one understands scientific-technological progress as a unity of evolutionary and revolutionary changes within the material-embodied production elements, the decisive question for its economic efficacy becomes how one will manage to take into account precisely those revolutionary changes while anticipating them and to steer toward them according to plan. Practice has demonstrated it is far easier to decide on changes and further developments on the basis of changing market and users' needs than to track what is in principle innovative in productive forces development.

From the fact that the scientific-technological revolution has greater time dimensions it follows directly that pervasive revolutionary changes also have to be expected in the years ahead and that grasping them rapidly reveals the rank of an industrial state and its economic management.

It is among the specific advantages and potentials of the socialist planned economy that it becomes possible

- to determine from the overall social vantage point those fields in which essential changes are to be enforced (concrete tasks on ensuring raw materials and energy, using domestic raw materials, environmental protection, stable sales positions in intended fields, and so forth),
- to spot in time, and vest in the science and technology plans, novel scientific ways and the economic ramifications of barely suggested basic research data in terms of their practical importance, and
- to integrate scientific-technological developmental trends seen to be future-bearing rapidly with economic planning and balancing so that temporary backlogs relative to top world standards do not arise in the first place in crucial fields in the GDR economy and that, thus, extra profits become possible through such basic innovations on foreign markets.

Second: Among the outstanding features of revolutionary scientific-technological innovations today undoubtedly is their complex economic character. Nearly all innovations produced by the scientific-technological revolution have in common that they can widely be used in all sorts of different economic sectors. This has to do with the need for coming up with preliminary achievements in many economic sectors, because the "transformation of the mode of production in one sphere of industry causes a transformation elsewhere, since they devour one another as different phases of one and the same overall process."<sup>2</sup>

That raises new questions for the long-term conceptual work. As long as it was a matter of producing and applying particular, less complex innovations, their scientific-technological preparation and transfer to production usually would take place within one economic unit, with important preliminary decisions frequently taken from the vantage point of a concrete enterprise or combine. When complex innovations demand preparations in many other economic sectors, however, the overall process of producing and applying research data assumes economic dimensions.

Especially for revolutionary innovations today we are dealing with socially controlling the application of a complex innovation throughout the economy. Thus, the total effect of R&D more and more depends on the proportioning of capacities and means and on the correlation of various activities and schedules among the economic units.

Third: From the high dynamics of the scientific-technological revolution, the broad effectiveness of revolutionary innovations, and the rapidly changing reproduction conditions, new possibilities and conditions arise for efficiency growth that directly heighten the economic-political place value of long-term conceptual work. These new conditions can be defined as follows:

- To a certain extent--a growing extent, it seems to us--economically useable scientific-technological leads are needed for maintaining the efficiency level as reached. Merely defending a market position once obtained or compensating for more expensive raw materials constitute ambitious scientific-technological tasks.

--The effectiveness of the last reproduction cycle, achieved more clearly than before through scientific-technological accomplishments, is a decisive input magnitude for future economic performance growth. It contradicts the nature of intensive expanded reproduction to make up for inadequate effectiveness or losses in effectiveness by extra resources that have to be kept within the reproduction cycle. It is necessary to produce a stable growth in effectiveness through high scientific-technological achievements to create leeway for further economic development in subsequent years.

--The progress of the scientific-technological revolution perceptibly increases the weight of basic and lead research, of work that will only in the future obtain its full economic efficacy. Curbing such work would patently program for future technical-technological arrears, as it were.

In other words: Intensively expanded reproduction requires facilitating a high effectiveness of production in the plan year through the totality of scientific-technological efforts as well as producing the necessary leads for future reproduction periods.

That is bound to have a clear effect on selecting those basic scientific-technical trends through which a growing production efficiency is to be ensured in the combines now and in the future. It is no longer enough to postpone economic effects in strategically decisive sectors of the scientific-technological development to the far distant future, but the prerequisites have to be laid for ensuring high economic effects in those very sectors even today.

Yet it is already foreseeable that many of the future effectivity effects will come through qualitatively completely novel scientific-technological developmental trends. Such fields as biotechnology, gene-technology, condenser relay techniques, or laser technology are most likely going to determine effectiveness in the future, even if they do not in every case produce high economic effects as yet today.

To set the prerequisites for top scientific-technological achievements in these fields, some of the R&D potential must be concentrated even today on keeping in step with the rate of scientific-technological development and ensuring in good time the needed research lead. The means for it, however, can be produced only to the needed extent, while elevated step by step, that an increasing part of the economic effects are obtained from science and technology in sectors which promise a high efficiency potential. So it is all the more important to spot in time the most productive areas of scientific-technological development economically over the long run in our conceptual work and to seek ways for tapping while they are being implemented high short-range economic effects as well. The main idea is to increase the proportion of basic scientific-technological innovations because they give rise to the biggest economic effects.

#### Sources and Current Tasks of Long-Range Conceptual Work in the Combines

One of the most important qualitative further developments of management and planning in scientific-technological progress is to grasp through long-range conceptual work the dialectical interaction between three groups of factors:

--Changes in the users' needs and conditions;  
--foreseeable scientific-technological developments in any given field; and  
--the condition and changes of one's own resources (expertise and experiences of the workers, engineers, and scientists, available raw materials and energy sources, the material-technical potential and investment opportunities, research potential and cooperation possibilities).<sup>3</sup>

It is essential for all three elements to affect each other actively in the course of an innovation process. Under changing conditions, the impulse, the motive for a scientific-technological innovation can mainly come from any one of those three groups of factors. Important for this however is to establish through conceptual work an internal linkage between these three groups of factors because from it are derived the decisive criteria, e.g. the chances for realizing innovations. Long-term conceptual work thus must greatly help in preparing the kind of R&D requirements that imply broad application opportunities in economically decisive scientific-technological fields for today and for the future, while best conforming to the specifics of their own resources situation and their intended development. The SED program says: "The SED deems it necessary that the research tasks in all institutes, universities and science facilities always also be derived from the needs of society, the reproduction conditions of the socialist economy, and the stage of development in any given science discipline."<sup>4</sup>

Especially under this aspect, an importance of principle attaches to working with refinement conceptions; that is one of the most important further developments of management and planning, aimed at comprehensive intensification.

In the past our combines gathered many experiences in working out the basic lines of production and technology development by means of long and medium-range conceptions whereby then to integrate more long-term innovator processes in the reproduction cycle. At the same time, with the transition to comprehensive intensification, the need became ever more apparent for tapping, presciently and long-term, the efficiency potentials of qualitative growth factors, and in view of their inherent linkages, and for turning them into the basis for shaping the entire reproduction process and for its management and planning. On the one side, the spectrum of efficiency possibilities has broadened significantly because of the acceleration of scientific-technological progress, on the other side, correct targets and requirements, geared to a high economy, call for effectively combining the potentials of scientific-technological progress with the market requirements and the available resources. Achieving top world standards calls for a planned structuring of capacities and means relative to all phases of the reproduction process: market preparation, targeted R&D, starting up production effectively, and obtaining market-effective pieces of output fast. Top positions achieved have to be shored up mainly by continual product and market management, technical services, and an immediate responsiveness to special customer preference.

Producing refinement conceptions has the purpose to determine all essential task that have to be resolved and to harmonize them with each other, so as to ensure a high and stable rate of production growth over medium and long term through new products and modern technologies on the basis of available resources.<sup>5</sup>  
The refinement conceptions therefore must be regarded as a separate, irreplaceable

management tool, indispensable for the substantive structure and cohesiveness of the long-term conceptual work in the various fields and for translating long-term developmental goals into concrete, binding planning tasks. In this fashion then refinement conceptions become increasingly a connecting link between the combines' long-term conceptual work and the plan preparation and specification, especially that of the 5-year plan.

For a well timed and proper integration of basically new scientific-technological developmental trends within the combine's overall developmental concept it is of crucial importance further to develop the ability to distil those data from science development that will be cogent and important for one's own field. Combines have to engage in more lead research of their own to come up fast with scientific-technological top achievements in such fields.

The point of departure for determining such strategically decisive fields are the long-term developmental trends in the economy which must be dealt with in terms of their specifics in the combines. That includes:

- the extensive use and optimum refining of domestic resources;
- a hastened development, production and application of microelectronics;
- qualitative changes in machine construction, relative to the production program and the technologies and to overall production organization; and
- a growing output of high-grade finished products, especially consumer goods, for domestic use and for export.<sup>6</sup>

For concretely applying these long-term economic structural lines in the combines, an efficient early spotting system is imperative. Its function should be to (1) signal in good time those basic future scientific-technological trends which absolutely call for lead research at the present time, (2) locate new areas of application for already known solutions, and (3) provide well timed information on the basic scientific-technological directions in which the efficiency potential is getting more and more exhausted. That is to say, using data from lead, application and market research is as important for setting up such early spotting system as is the analysis of the development in the application sectors of scientific-technological solutions and the examination of weak spots in one's own reproduction process. Such a systematic coupling of long-term early spotting with operational early alerts can greatly help in providing handles for conceiving new scientific-technological developments in the combines.

Among the most important prerequisites for successfully conceiving and realizing basic scientific-technological trends is a consistent exploration of and consideration for the available resources. Innovation projects that fully exhaust the strengths of one's own resources for performance growth while tapping structural effects are of fundamental importance to innovative processes. Mainly the much higher procurement expenses for energy sources and raw materials and the tough constraints on investments and the (quantitative) labor capacity decisively affect the ways and means of implementing stable economic performance growth. These new conditions must principally be met by selecting the kind of basic scientific-technological trends in which, through optimum refining mainly of domestic raw materials and fuels and through broadly using the rich production experiences and processing skills of the workers, technicians, engineers, and scientists, stable foundations are laid for the combines' performance and efficiency development.

Consideration for available resources and their foreseeable changes in long-term conceptual work implies a consistent orientation by rationalization to a higher receptivity by the available production technology to product developments. The accelerating scientific-technological progress, the rapid succession in new generations of products, calls for an elastic production technology with an in-built development capacity, so that we can economically utilize the latest results of scientific-technological progress without having to take out large parts of the production machinery. Especially under that aspect, outstanding importance attaches to the in-house means of rationalization construction in the combines. That must increasingly become the crucial technical basis for product substitution and the modernization of extant production equipment.

Rationalization means construction therefore must be firmly integrated with decision making on long-term developmental product and technology lines in rationalization means construction so that one can ensure even in terms of long-term requirements the conformity between the technological demands made on the manufacture of new products and the technological level of the extant production machinery.

To prepare scientific-technological developmental lines a combine can bring out with economic benefits one has to pursue more consistently the inherent link between research and sales. No longer is it sufficient today to go ahead and do research and then look for buyers on the market. The emphasis must be placed on the decision--proceeding from the real market conditions, the foreseeable demands, or the development of the users' needs--by which products positions established should be strengthened on which markets or how new market positions can be gained. Only from there will we then get the concrete substantive, time-related and economic R&D requirements.

Consistently tapping sales as a source for scientific-technological requirements requires in particular

- to orient in a target-directed manner the degree of innovation in scientific-technological results to solving decisive user problems;
- to deal with the flexibility/stability ratio in scientific-technological developments more from the vantage point of users' requirements; and
- to take the specifics of concrete markets more into account.

The range then goes from bringing a targeted and active influence to bear on users' requirements for basic scientific-technological innovations, via an analysis of their long-term stable trends, all the way to reacting to short-term changes in demands and a prompt response to customer preferences. The common goal of all these considerations ought to be to expand the elbow room for active behavior on the world market.

Basic research, market research, and applied research find their common point of intersection in the fundamental task not only to react on the market, but to affect it actively.

## Working Out and Putting into Effect Scientific-Technological Strategies--A Chief Way for Making Long-Term Conceptual Work in the Combines More Skillful

It has been found profitable in the combines in past years to work out main production lines and procedural groups within the framework of long-term conceptual work and provide estimates, relative to them, on important economic and scientific-technological developmental requirements--mostly computed for a 5-year period. Efforts also increased in preparing more long-term and coordinated requirements and goals for R&D, production rationalization, and elevating its technological level, with the idea of making use in production of innovations at once, smoothly, and with high economic effects.

Furthermore, many scientific-technological conceptions contain concrete targets on export development and improved foreign exchange profitability. This explains that phases in the reproduction process that mainly follow after science and technology were increasingly drawn into the conceptual activity.

The basic problem in making long-term conceptual work in the combines more skillful is this: On the one side, one must become more certain about bringing to effect long-term stable economic benefits for the intensive expanded reproduction cycle in the combine by means of the established main scientific-technological trends. A big reason why the intended long-term scientific-technological tasks in the annual science and technology plans were not treated consistently enough was, e.g., that in some of these projects the anticipated economic targets at the time they were accepted into the science and technology annual plan no longer conformed to economic requirements.

On the other side, a flexible reaction to short-term changes in the production and market conditions must be aimed much more purposefully on fulfilling long-term scientific-technological conceptions and, thus, on ensuring the highest economy over a longer period of time.

The point is to tackle both tasks simultaneously. The close interrelations between current and future efficiency growth in the transition to comprehensive intensification required deliberately linking long-term conceptual work more with a short-term reaction capability.

Under conditions that are turning the present economic effects derived from science and technology into a major source for future performance and efficiency growth, the deriving of scientific-technical requirements from future reproduction conditions implies a flexible reaction to rapidly changing current reproduction conditions. A number of new requirements derive from that which objectively could thus far not even be subject to long-term conceptual work in the combines.

A main way for providing more expertise for the long-term conceptual work in the combines now turns out to be the preparation and implementation of scientific-technical strategies for complex innovation processes running through the whole reproduction cycle in a combine. Such strategies are essentially a technical policy relative to concrete innovations and problem solutions. Their implementation calls for a coordinated shaping of the potential, typical of each product and procedural line, from conceiving the idea to market research.

As to their function, they are a connecting link that strengthens the future economic reproduction requirements by specific basic scientific-technological trends. That provides the possibility to derive for each of these basic trends requirements now to be dealt with for the science and technology plans as well as consequences for the investment plan, the production rationalization, and the sales plan. Scientific-technical strategies then become a new element in the management and planning of scientific-technical progress, which also distinguishes them from refinement conceptions and other long-term documents.

Working out refinement conceptions would in the past principally foster a streamlined management and planning for all phases of the reproduction process. Scientific-technical strategies make possible such a more long-range and predictive management and planning for concrete innovation processes and problem solutions. They thus become the centerpiece in long-term conceptual work, it finding its origin more and more in streamlined management and planning of complex innovator processes, from conceiving the idea to market research.

Scientific-technical strategies in terms of their time profile (they should embrace at least two 5-year-plan periods; at tempo-controlling sectors of the scientific-technical progress they therefore include two to three market periods for new scientific-technical solutions) as well as in terms of their scientific-technical and economic structure as main trends, are more broadly pitched than are long-term conceptions.

The abundance of variables they contain for strengthening economic objectives is larger than in long-term conceptions, which mostly even over a period of 5 years contain a delineated number of scientific-technical variants already. Furthermore, scientific-technical strategies differ in their breadth from long-term conceptions also by that their being dealt with mainly on the level of the economy and on the combine level appears sensible, while on the combine enterprise level it mainly involves the implementation of specific strategies. Then the specific variables of the economic strategies can be dealt with in various combines.

The basic strategic orientation of a combine can, by analogy, be implemented in differing variables in the various combine enterprises.

As to the time profile and the economic structure of basic scientific-technical trends and the level on which they are dealt with, scientific-technical strategies thus are broader than long-term conceptions. At the same time, however, they are also more narrow than they are since scientific-technical strategies always ought to relate to a concrete scientific-technical innovation process, to a complex problem solution.

Long-term conceptions, as refinement conceptions, always embrace several strategic lines, i.e., they deal with the delineated variables of diverse strategic lines. They thus also account for the complex economic effects the totality of all strategies should achieve. In the long-term conceptions, long-term, medium-term, and short-term economic effects of the different strategies are already reflected in the performance parameters to be reached by the combines.

From the fact that the refinement conceptions entail the totality of the economic effects of different strategies arises the need and possibility that inferences are drawn from them for specifying or even newly adopting some strategies. In the 5-year plans and the annual plans these different basic strategic trends, as derived from future reproduction requirements, must be translated into requirements for lead research, development, design or project planning, production rationalization, and sales. That is to say, the strategic work in the scientific-technical field ranges from working out the strategies themselves via the long-term conceptions, to their being translated into the requirements for the 5-year plans and annual plans with their various plan segments.

Depending on the kind of scientific-technical strategy they are under, the tasks to be included in the long-term conceptions and the 5-year plans and annual plans also differ from each other.<sup>7</sup> Offensive strategies, utilization strategies, traditional strategies, and strategies to be placed in a niche may amount to all sorts of different scientific-technical tasks and requirements. No universal recipe exists for choosing one or the other type of scientific-technical strategies; each of these strategies has its in-built economic benefits as well as weaknesses. Decisive for a success is that they be deliberately chosen and implemented. Under that aspect, all of these strategies certainly are beneficial. But if, e.g., conversely, because of a faulty scientific-technical performance of one's own, one has to turn aside to a traditional or niche strategy, technological backwardness becomes inevitable.

Right now, in providing contours for strategic work in the combines, the main point is to work out more differentiated scientific-technical strategies relative to innovation processes, to implement them comprehensively in the long-term conceptions, and steadily to test while doing so the relevance of strategic decisions, without by that token always again changing the strategies themselves.

Of special importance for effective strategic work in the scientific-technical field is coping with the changing interrelations between the long-term nature and the operational busyness in the R&D management and planning process. That then sets the preconditions to reduce the measure of avoidable busyness. By avoidable busyness we mean here mainly the short-term search for scientific-technical substitute solutions that have to be included in the annual science and technology plans because the intended long-term ones can no longer meet the efficiency requirements. At the same time, a target-directed operational management and planning of science and technology must be used more for constantly checking the intended long-term solutions and their scientific-technical and economic targets as to their relevance and for continually making them more specific, whereby the prerequisites are laid for their comprehensive implementation.

Rapidly reacting to users' needs that can be anticipated, an operational integration of users' experiences collected, or a quick adoption of projects in the annual science and technology plans that promise a highly complex degree of scientific-technical solutions over the long run--all these are demands made on operational R&D management activity which at once also foster a more purposeful implementation of the basic strategic trends in scientific-technological development.

The specifics of strategic work in the scientific-technological field in the combines thus essentially lie in a deliberate closer linkage between long-term conceptual and operational management and planning activity for the purpose of creating within anticipated basic long-term scientific-technological trends prerequisites for a high reaction capability to changing reproduction conditions. That at the same time provides new opportunities for all the scientific-technological development in the combine to combine closely and over the long run a high stability in pursuing economically productive trends in scientific-technological progress with a flexible reaction to changing reproduction conditions.

For determining the basic long-term trends in scientific-technological development it is also necessary to work out more than has been done the concrete phases of their implementation. The point is to illuminate the step-by-step implementation of the anticipated long-term scientific-technological objectives and to work out discretely the economic targets to be reached in any given phase.

To set the stage so that the complexity of a scientific-technical problem solution and its economic effects rise from stage to stage, one must observe and, with it, economically evaluate several variables of a problem solution within one strategic line. For basic innovations that is indispensable to be sure to reach a strategic goal. The basic problem then is that auspicious variables are not stopped too early--only because a precise quantitative proof of value does not yet exist--or less promising looking variables are not pursued too long.

A broad spectrum of variables should yet be ensured for strategic lines that would complete known technical principles to gain access to as broad a circle of customers as possible. The main point is to put together as many variables as possible from unified components, sets of components, or modules.

Working out a phased implementation of basic long-term scientific-technical trends, their implementation through a whole number of variables, an a discriminating evaluation of the economic effects to be reached in each of the phases also create the preconditions for enhancing the binding authority of the scientific-technical strategies and of the long-term conceptions. It is the kind of approach that can give us the handles for translating the basic long-term scientific-technical trends more concretely into the annual science and technology plans.

Simultaneously, the R&D tasks in the annual plans can be oriented more purposively to the implementation of a scientific-technological strategy. If, e.g., right during the first year of a 5-year plan scientific-technical measures are undertaken which serve the preparation and implementation of an R&D complex that can become economically effective only 5 years later, then there is less of a risk to be surprised by the rate of the international scientific-technological development, to lose rapport with top world standards, and not to bring to realization with the expected economic effects the long-term trends in scientific-technological development.

#### FOOTNOTES

1. E. Honecker, "From the Politburo Report to the SED Central Committee--9th SED Central Committee Session," Dietz publishing house, Berlin, 1984, p 31.

2. K. Marx/F. Engels, "Werke" [Works] Dietz publishing house, Berlin, 1956 ff, Vol 23, p 404.
3. Cf. C. Grafe/D. Liebing/H. Nick/H. Willems, "On the Management of Scientific-Technological Progress in the Combines," EINHEIT, No 5, 1984, pp 410 ff.
4. "Programm der Sozialistischen Einheitspartei Deutschlands," Dietz publishing house, Berlin, 1976, pp 47 f.
5. Cf. G. Mittag, "Getting Set for the 11th Party Congress Through Top Achievements," "Seminar des Zentralkomitees der SED mit den Generaldirektoren der Kombinate und den Parteiorganisatoren des ZK am 7. Maerz 1985 in Leipzig," Dietz publishing house, Berlin, 1985, p 57.
6. Cf. G. Mittag, "Comprehensively Organizing Intensification by New Criteria," "Seminaristische Beratung des ZK der SED mit den Generaldirektoren der Kombinate und den Parteiorganisatoren des ZK am 8. und 9. Maerz 1984 in Leipzig," Dietz publishing house, Berlin, 1984, pp 25 f.
7. Diverse types of scientific-technological strategies are discussed in detail in H. Maier, "Scientific-Technological Innovation Processes, Efficiency, and the Forming of Strategies," WIRTSCHAFTSWISSENSCHAFT, No 11, 1981, pp 1327 ff.

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ALTERNATIVES TO GASOLINE EXPLORED

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[Article by Dr of Engineering I. Irmscher, Berlin-Wartenberg Engineering College, under the "Forschung, Development, Production" rubric: "Biomass As the Basis for Alternative Fuels"]

[Text] At the Berlin-Wartenberg Engineering College, a study<sup>1</sup> was made of the possibilities for using nonfossil energy sources as alternative fuels in consideration of the specific agricultural conditions of the GDR. The point of departure was the requirements for the economic use of diesel fuel, the search for possibilities for replacing diesel fuel with domestic energy sources, especially biogas, and agriculture's very important share--about one-fifth--of the national economy's overall requirement for diesel fuel. In this way, the economic strategy established at the 10th SED Party Congress was taken into account.<sup>2</sup>

Biomass As a Basic Material

Nonfossil energy sources from agriculture and forestry are based upon the regrowing biomass. Through vegetative biomass, use can be made of indirect solar energy that was used within photosynthesis for the reduction of CO<sub>2</sub>. There are three fundamental possibilities for the utilization of biomass with an orientation toward energy:

- burning, possibly indirectly through gasification,
- alcoholic fermentation,
- anaerobic fermentation into biogas.

Essentially, the following energy sources can be produced on the basis of biomass (Table 1):

- biogas through the fermentation of organic wastes, especially liquid manure from animal production facilities, sewage and municipal refuse,

--ethanol through the fermentation of biomass containing sugar, starch or cellulose,

--vegetable oils from soybeans, rape, flax, palms and eucalyptus, for example, and

--generator gas from woody wastes.

Table 1. Some Nonfossil Energy Sources in the Agricultural Area

Energy Source	Recoverable From	Chief Constituents	Further Processing Into	Substitute for		
				Motor Gasoline	Diesel Fuel	Diesel in Pilot-Injection Method
Biogas	Organic wastes such as liquid manure, municipal refuse, sewage	CH <sub>4</sub> 50-75%	-	(x) <sup>1)</sup>		
		CO <sub>2</sub> 25-45%	CH <sub>4</sub> , compressed gas	x <sup>4)</sup>		x
		H <sub>2</sub> about 2%	CH <sub>4</sub> , liquid gas	x <sup>4)</sup>		x
		N <sub>2</sub> about 5%	Synthetic gas	(x)		(x)
		H <sub>2</sub> S up to 5%	Methanol <sup>2)</sup>	x <sup>4)</sup>		x
Ethanol	Biomass containing sugar, starch or cellulose--e.g. grain, potatoes, sugar beets	O <sub>2</sub> up to 1%				
		Traces of NH <sub>4</sub> , NO <sub>x</sub>				
		C <sub>2</sub> H <sub>5</sub> OH	C <sub>2</sub> H <sub>5</sub> OH, pure	x <sup>4)</sup>		x
			Gasoline additive	x		(x)
			Gasoline additive with solubilizer	x		(x)
Vegetable oils	Oil seeds such as rape, linseed, sunflowers, soybeans, peanuts, cotton and eucalyptus		Additive to diesel fuel with solubilizer		x	
					(x)	
			Addition of additives		x	
Generator gas	Wood	CO 20-25%	(Purification)	x		x
		CH <sub>4</sub> about 3%	CO-CH <sub>4</sub> -H <sub>2</sub> mixture <sup>3)</sup>	x		x
		H <sub>2</sub> 15-20%				
		CO <sub>2</sub> 10-15%				
		N <sub>2</sub> about 50%				
		H <sub>2</sub> S in traces				

1) stationary operation, 2) production possible on a large-scale only, 3) possible only under stationary operation, 4) strive for  $\epsilon = 12$  to 14

In principle, these energy sources are suitable as fuels for internal combustion engines (Table 2), whereby additional processing is good policy depending upon the intended use. The primacy of food and fodder production, however, greatly limits their use as energy, so that only biogas is of importance for the GDR. In countries with an overproduction of plant products or with more luxuriant plant growth, the cultivation of plants for use as energy is discussed and in part practiced as well (the alcohol program in Brazil, for example).

Higher temperatures are likewise beneficial in the fermentation of biogas. These circumstances should be considered in the sense of export interests.

Table 2. Selected Characteristics of Fuels for Internal-Combustion Engines (compiled in accordance with items 7 and 9 through 13 of bibliography)

and 9 through 13 of bibliography)

		Hu				Evaporation		Energy Density in the Tank (representative values)		
Fuel	Octane Number	Mj/kg	Mj/m <sup>3</sup> 1.N.	$\lambda_{min}$ 1	$\lambda_{max}$ 1	Heat kj/kg	Tank(example)	Mj/l (net)	Mj/l (gross)	Mj/kg (gross)
DK 1, TGL 4938	CaZ-45	40.6-44.4				544-795	Tin tank	35.5	35.3	40.5-44.3
VK, TGL 6428	84/88-92	42.7-43.6		0.70	1.4	377-502	Tin tank	31.4	31.2	42.6-43.5
Methanol	94,6/114.4	19.7			1.9	1,110	Tin tank	15.7	15.5	19.6
Ethanol	94/111.4	26.8			1.7	904	Tin tank	21.3	21.1	25.7
Rapeseed oil	CaZ-DK	40.56					Tin tank	35.5	35.3	40.5
Methane	115/125	49.9	35.8	0.60	1.8		Pressure tank (20 MPa)	7.1	6	5.7
							Cryotank <sup>1)</sup>	16.5	13	13.5
							Liquid gas tank <sup>1)</sup>	20.9	16	20
Propane, butane	97-103/125	46.1		0.53	1.9					
TGL 3073							Pressure tank			
City gas	90 to 100	15.9								Special
TGL 28 049		16.1								trailer
Generator gas	90 to 100	5					Wood container with beech	11.5		11.5
							Beech	8		8
							(effective value for carburation efficiency 0.7)			
Hydrogen		119.6	10.76	0.17	9.8		Pressure tank (20 MPa)	2.15	1.8	1.7
							Cryotank <sup>1)</sup>	6.8	5.5	5.5
							Metal hybrid tank			2.4-10
To compare:						Lead storage battery		0.35		0.1

<sup>1)</sup> 80 percent full

## Biogas

Biogas arises in the fermentation of organic substances with the exclusion of air. For the action of methane bacteria that decompose the substance in a two-stage process, certain physical and chemical conditions must be adhered to, especially the mesophilic (30 to 40 degrees Celsius) or the thermophilic (50 to 60 degrees Celsius) temperature regime. Fermentation over a time period of about 20 days is technically meaningful. Biogas contains 50 to 75 percent methane, 25 to 45 percent carbon dioxide, and also hydrogen, nitrogen, hydrogen sulphide, oxygen, and some other elements and compounds.

In the GDR, in contrast to the theoretical complete fermentation of all animal excretions amounting to 5 to 7 billion cubic meters of biogas, an annual production of about 200 million gross cubic meters through the fermentation of liquid manure at 290 animal production sites <sup>3</sup> seems economically and ecologically expedient. In the future as well, one can expect a possible production of about 65 million cubic meters <sup>4</sup> of biogas from the water economy and more from refuse dumps. Although biogas can thereby achieve a share of only about 0.15 percent of the GDR's total energy balance, it unquestionably has importance for the national economy on account of its methane content and

the achievable ecological effects in agriculture (elimination of excess concentrations of liquid manure and suitability of the fermented mass as high-quality fertilizer). If one were to employ the entire possible net production of biogas as fuel, then one could achieve the effective substitution of 75,000 tons of diesel fuel annually (in 1982, 6.14 million tons of diesel fuel and kerosene were produced in the GDR<sup>14</sup>).

The available net gas production is not constant because, among other things, of the differing heat requirements at different times of the year in the biogas facilities. Large-scale gas storage is considered inexpedient from an economic point of view and because of the additional expenditure of energy for compression. For this reason, multifuel engines are obviously promising for the utilization of biogas as an alternative fuel for vehicles.

At the present time, several biogas facilities are in operation in the GDR or are in the completion and start-up phase.

In addition to utilization as a heating gas, biogas can be used in various processing stages and forms as a fuel. Unrefined it is suitable for the operation of stationary biogas engines used within biogas facilities to drive generators or heat pumps. The utilization of waste heat makes it possible for the engines to achieve overall efficiencies of 0.7 to 0.9 and even greater in individual cases. These stationary gas engines work under the internal-combustion principle and are highly compressed ( $\epsilon = 12$  to  $14$ ) to utilize the high knock rating of biogas. Use is made of rebuilt NKW-engines and larger, preferably slow or intermediate-speed stationary engines. From the point of view of engine technology, main development efforts result from the in part relatively high content of hydrogen sulfide (up to 5 percent in individual cases), the high demands on the ignition system resulting from the compression ratio, the continuous operation largely without supervision, the requirements of safety regulations, and the long service life to be achieved. This possibility for the use of biogas seems especially promising, particularly when coupled with heat pumps; it cannot, however, be strictly included as a use of alternative fuel. The upgrading of biogas necessary for mobile utilization involves the production of methane, primarily through the stages  $\text{CO}_2$  washing, desulfurization, drying and filtering. From the point of view of engine technology, the hydrogen parts would not be troublesome. Under some circumstances, however, their storage can be a problem, especially in the liquefied state. Methane based upon biogas is naturally just as usable as methane made available in some other way, particularly on the basis of natural gas. It can be used with no problem in all vehicles designed for high-quality natural gas. Pure methane can be stored either through compression (usually 15 to 20 MPa) or through liquefaction. Liquefaction, about which Steinmetz<sup>5</sup> reported at the 14th Technical Motor Vehicle Conference in 1984 (see also KFT, No 7, 1984, p 196), is probably to be described as the optimum version of methane storage. It has the following advantages over compression:

- larger storable energy quantity,
- smaller additional mass,

--as a rule, only a compact tank and no bottle battery, thus fewer hand valves to be operated,

--possibility of a partial energy recuperation in liquefaction.

The liquefaction of methane requires that the methane be very pure. Because of the high steam pressure of about 20 MPa and the boiling point of  $-161.7$  degrees Celsius at atmospheric pressure, cryotanks are necessary (Figure 1). They are filled with liquid methane, whereby a sufficiently large gaseous phase must always be ensured as a pressure buffer, because the addition of heat--slight, to be sure, but nevertheless present--to the cold liquefied gas always produces an increase in the gaseous portion and thus an increase in pressure. The system for the removal of gas ensures that methane is taken from the gaseous phase until the internal tank pressure falls below a certain value, about 0.1 MPa. It then automatically switches over to removal from the liquid phase, whereby extraction occurs on the basis of the residual pressure in the gaseous phase. If necessary, of course, there is also an automatic switching over to the gaseous phase.

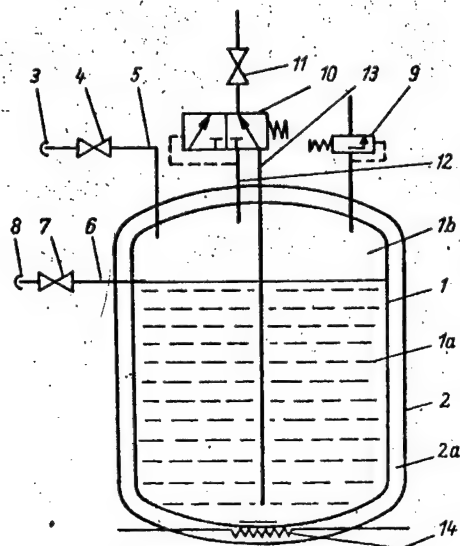


Figure 1. Fundamental Structure of a Cryotank

- |                              |  |
|------------------------------|--|
| Key. 1. Pressure tank        | 9. Pressure control valve                |
| 1a. Methane liquid gas phase | 10. Reversing valve                      |
| 1b. Methane gaseous phase    | liquid phase/gaseous phase               |
| 2. Tank jacket               | 11. Stop valve of the removal line       |
| 2a. Vacuum                   | 12. Removal line                         |
| 3. Filling nozzle            | gaseous phase                            |
| 4. Filling valve             | 13. Removal line                         |
| 5. Filling line              | liquid phase                             |
| 6. Gauging line              | 14. Heating for removal at extremely low |
| 7. Gauging valve             | pressure                                 |
| 8. Sealing plug              |  |

A longer-term large-scale storage of methane could take place either in compressed form in large containers or underground or in liquid form in cryotank systems. Both possibilities are substantially more costly than conventional tank farms for liquid fuel, whereby cryotechnology appears more promising than the technology of compressed gas.

The operation of vehicles with methane (from biogas or high-quality natural gas) requires equipping with an approved gas system and the corresponding engines. At this point, several special features should be pointed out. For compressed-gas vehicles, use is generally made of bottle batteries that on trucks are often arranged either behind the driver's cab, usually transversely, or individually under the truck platform transverse to the direction of travel (for example: IFA W 50 and Robur LO 3000 for natural gas). In the case of tractors, it is possible to attach them parallel to the engine on both sides. The propellant gas regulation<sup>6</sup> also conditionally allows the placing of gas bottles on the tops of vehicles. Furthermore, for vehicles with high-pressure systems, it must be noted that precompression reducers allowing a maximum pressure of 2.5 MPa should be provided immediately after the gas bottles to the extent that this is possible. Besides aspects involving safety regulations, questions of the dimensioning of all subsequently actuated fittings and lines and especially of the pressure regulators were determinant for these provisions.

In the case of liquid-methane vehicles, suitably adjusted cryotanks (that have the basic geometric forms of pressure tanks, however) can be arranged on the vehicle contours instead of the prevailing tanks, for example. The direct parallel coupling of several cryotanks is inadmissible because of the danger of the transfusion of liquid gas into a tank and thus of its being overfilled. Because of the lower operating pressure, vehicles with cryotank systems do not need any additional pressure reducers.

Alternating gasoline engines, spark-ignition high-compression methane engines and direct-injection diesel engines that alternatively can be used as pilot-injected engines are suitable as engines.

Since methane as a gas fuel offers favorable preconditions for a good mixture, it is possible, on the condition of an even gas or mixture distribution to the individual cylinders, to achieve a reduction of the emission of pollutants and noise in spark-ignition engines. In the case of pilot-injected engines, there is only a slight smoke density in gas operation, whereas the combustion noises are often greater because of external mixture and strong charge movements in the cylinder. From personal experience, only pilot-injected engines with an extremely weak charge movement run significantly smoother in gas operation than in operation with diesel fuel.

Special attention must be called to the required safety precautions in the use of methane or biogas as an alternative fuel, precautions requiring consequences by the vehicle manufacturer, the operator and in maintenance. Conceptually, one must proceed from the following safety principles:

1. An explosive gas-air mixture is only admissible where it is technically necessary.

2. In the area endangered by explosion, all open ignition sources are to be excluded to the extent that they are not necessary for the work process.

3. Especially in acutely endangered areas (the suction system and the crankcase, for example), the consequences in the event of a breakdown are to be kept to a minimum through such appropriate measures as the placing of large-area explosion-proof valves or a dimensioning for the explosion pressure (about 0.7 MPa).

The previous practice of about 50 years has shown that mobile vehicle gas systems are sufficiently safe even in extreme situations. The focal points for further development work on gas engines with respect to safety regulations should be the systems for crank case ventilation, the gas fuel-air mixing equipment and the engine control and regulation including a blocked gas feed for safety purposes. The tasks in the further development of engine control and regulation are naturally especially demanding for dual-fuel engines. A number of solutions and experiences are already under consideration.

An additional possibility for the improvement of methane would involve the synthesis of methanol. But besides large investments, this requires large-scale installations, whose requirement for methane or synthetic gas would greatly exceed the possible total production of biogas in the GDR.

#### Ethanol

Ethanol [alcohol], which is also used as a basic product in the food industry, can be produced from numerous field crops such as potatoes and grain using known technologies. The limitation of the water content is of particular importance for use as a fuel. Its characteristics in engine operation are similar to those of the chemically related methanol. At this point, therefore, only brief mention will be made of the following aspects:

--knockless gasoline,

--high evaporation heat,

--boiling point and no distillation range (for there is no fuel mixture!), and

--resistance of all components of the fuel system can be ensured.

Ethanol is suitable both as a mixture component for gasoline fuel and diesel fuel--with a solubilizer, if necessary--and as a fuel itself, whereby additives with a low boiling point are to be added especially to ensure the cold-start capability of the engines depending upon the design of the mixing system.

Essentially, standard engines can be employed for the utilization of fuels diluted with ethanol. Special alcohol engines, which are to be operated with pure or nearly pure ethanol, are to be designed as internal combustion engines with a compression of about 12 to 14. There are various ways to allow for the

high evaporation heat. In the literature, special emphasis is put on measures for a substantial preheating of the mixture and for injection systems. Hybrid operation with gasoline, especially for the start and to resolve transition problems, is likewise conceivable. In addition, ethanol can be used in appropriately modified diesel engines in accordance with the pilot-injected procedure.

### Vegetable Oils

Vegetable oils are likewise an interesting alternative fuel. They can be produced from the relevant known plant types. They have qualities that identify them as diesel fuels. Experiments carried out heretofore were obviously positive,<sup>7</sup> even though a number of problems would have to be resolved for specific application. Here it seems appropriate to make changes in the fuel through suitable additives, changes that, depending upon the charge, would have to relate to the correction of the viscosity behavior and to the avoidance of deposits in the fuel system and in the combustion chamber. Under these conditions, one could use vegetable oils as full-value diesel fuel. Relevant studies or projects are known from the FRG<sup>7</sup> and Malaysia (see KFT No 10, 1984, p 294), among other places.

### Generator Gas

Generator gas, just as biogas and other gas fuels based upon fossils, was used as an alternative fuel as early as the 1930's and 1940's. Although a number of specific improvements are possible on the known gas generators, as apparently have been realized in France, including in microelectronic control, this can do nothing to change the fundamental disadvantages of the system:

- special qualitative and dimensional demands on the wood to be used, so that briquetting may be necessary before loading the gas generator,

- low thermal value of wood, so that, in consideration of the losses in the gas generator relative to conventional liquid fuel, one would have to bring along five times the mass of the energy source to achieve the equivalent amount of energy, which, in the case of packing with no loss of space, would mean a tank with a volume six to eight times greater,

- additional masses through the wood gas generator (mass 8 to 16 kg/kilowatt of engine output), the gas cooler and the gas purifier, and other accessories,

- reduction of the engine torque and engine output to 70 to 80 percent.

The problems that result in making wood wastes available are likewise considerable, although statistically significant unused reserves are still evident. In individual cases, operation with wood gas is quite possible<sup>9</sup> as a curiosity but not as a fundamental up-to-date technical solution.

## Conclusions

It is not to be expected that that alternative fuels on a nonfossil agricultural basis will play a revolutionary role in the GDR. That will likely be a matter for the large-scale production of hydrogen or hydrocarbons in a few decades through the reduction of water and carbon dioxide using nuclear energy. But biogas should be reasonably integrated for the effective utilization of all available energy sources. Especially appropriate from the technical point of view of vehicles is its application for a limited number of motor vehicles in the immediate area of biogas facilities. The compressed gas versions of the W 50 and the Robur LO 3000 that have already been presented to the public should be further developed as special types and made available to the relevant areas of the national economy as new vehicles or through retrofit kits, assuming the beginning of operations of additional biogas facilities and the required filling stations.

The circumstance that technically largely or completely identical retrofit kits or vehicles must also be provided for operation with propane-butane liquid gas and natural gas for the determined users may well turn out to be positive because it increases unit quantities.

Similarly, one may expect a certain requirement for methane and ethanol vehicles in the world market. One must also consider the development trends for the use of stationary biogas engines.

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CSO: 2300/88

ECONOMY

GERMAN DEMOCRATIC REPUBLIC

# POOR TRANSPORT OF MATERIALS DELAYS INNER-CITY HOUSING PLANS

Vienna DIE PRESSE in German 2 Jan 86 p 2

[Report by Hans-Ulrich Kersten: "When Workers 'Stand Around' for 11 Hours - Open Wounds in GDR Housing Construction"]

[Text] Reporters had once more touched an open wound. When visiting a construction site in Marzahn, the largest housing construction district of East Berlin, an employee of GDR television had witnessed a typical telephone call: It concerned materials for the roof trusses. "Lack of vehicles, quite definitely lack of vehicles," a worker was told to explain the absence of the expected delivery. But the first delivery was certain to arrive at 07.00 hours the next morning.

The next morning, a Friday, the reporter came back at 11.30 hours--the construction workers stood waiting around just as on the previous day. The construction materials supplier had not delivered==despite the current housing policy priority "tighten the roofs." A worker forcibly expressed his anger: "I am mad that I have to get up at 05.00 hours and am supposed to work until 17.30 hours. After all, that means 11 hours. And then nothing is here, and I just stand around waiting."

Comrade Walter, responsible for materials management at the Marzahn construction site, confirmed to the reporter that the Berlin construction materials supplier often fails to make deliveries on time: "We make many stressful telephone calls, fight for the timely delivery of the material." Lately carpenters and painters in block 43 of the Marzahn construction site were able to begin their work only after a week's delay: Such difficulties are typical for other construction projects in the GDR also.

Sometimes the vehicles are lacking, which should carry materials; at other times heating radiators or electric stoves are simply absent; occasionally even bathtubs are unavailable. It is all the more surprising that, according to official data and despite such shortages, almost 2.6 million housing units have been constructed, modernized or reconstructed since 1949, the beginning of the GDR housing construction program. At the present time the above mentioned action "tighten the roofs" has priority. It is to be completed no later than 1987.

Admittedly, up to now only 40 percent of the defective roofs have been repaired: Experts doubt that the time schedule can in fact be kept, because the enterprises are far from being able to satisfy the demand for roofing tiles, despite extra efforts and many special shifts.

1990 is a magical date. By then, the GDR housing issue as a "social problem" is to be settled. According to Gerhard Schuetze, deputy construction minister, 50 percent of the new housing units are to be built in the inner cities.

If sociological inquiries are consulted, well above a third of GDR citizens living in large cities would prefer a house of their own with garage, den, more living space and a yard. However, they are rather unlikely ever to own such a dream house in the GDR: Only 10 percent one-family homes are planned.

11698

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ECONOMY

POLAND

# COMMUNICATIONS AGREEMENT WITH SOVIETS SIGNED

Warsaw RZECZPOSPOLITA in Polish 26 Nov 85 p 3

[Article by (mk): "Communications"]

[Text] A new government agreement on cooperation between Poland and the USSR in the field of communications was signed in mid-October during the visit of Wasilii Szamszyn, minister of communications in the Soviet Union.

The export production of Poland's telecommunications industry is directed primarily at the Soviet buyer. The USSR purchases over 85 percent of the entire export of telephone sets and exchanges, dispatching and transmitting line equipment, fire-alarm signal equipment, and parts for production of telephone exchanges. Such strong commercial ties have made close scientific and technical cooperation necessary. Newly developed types of equipment are exported and co-produced by our countries.

The importance of the tasks jointly undertaken is shown by the fact that seven of them were included in the long-range program for scientific, technical and economic cooperation between the Polish People's Republic and the USSR to the year 2000. The more interesting tasks include work on computer teletransmission equipment and new types of dispatching equipment and home telephones.

But Polish-Soviet cooperation is not limited simply to contacts on the ministerial level. Some enterprises in the TELKOM group have established close contacts with the PROMSWIAZ factory in Kiev, and for a long time now there has been cooperation between the Moscow telephone network headquarters and the Warsaw District Office of Polish Posts, Telegraphs and Telephones, and between Central Telegraph in Moscow and the Main Telephone Materials Office in Warsaw. And recently, the Provincial Post Office in Bialystok established cooperation with the post office in Kowno. Here we should also mention one more, often unnoticed, area of mutual contacts, i.e., the daily work of the Polish and Russian telephone and telegraph operators who provide constant and uninterrupted international postal and telecommunications services.

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ECONOMY

POLAND

# SOVIET COOPERATION IN POTATO PROCESSING HIGHLIGHTED

Warsaw RZECZPOSPOLITA in Polish 26 Nov 85 p 3

[Article by (jesz): "Joint Potato-Processing Investment"]

[Text] With harvests on the order of 35-40 million tons, Poland ranks third (after the USSR and China) in world production of potatoes. But while we have an abundance of the raw product, our potato-industry potential is small and furthermore, it is inconveniently distributed.

Most of the factories in this subsector are in the western part of the country, while most of the raw product is in the eastern part.

Of the 1.5 million tons of potatoes processed each year, over half (800,000 tons) have to be hauled a distance of as much as 600 km. That is why we place so much hope in the construction (jointly with the USSR) of a potato-processing factory complex in the eastern part of Poland (most likely in Biala Podlaska Province). Agreements on this construction are in their final stages.

Completion of this capital project will bring benefits to both sides. For us, the increase in the production of starch will be very important for it will allow us to export it, the market offer of potato products will be enhanced, the cost of hauling potatoes will be cut almost in half, and finally, a regress in their production will be prevented. It is anticipated that this Polish-Soviet investment will be completed in approximately 1990.

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ECONOMY

POLAND

'NOT' ON ENCOURAGING INDUSTRY TECHNOLOGICAL ADVANCES

Warsaw ZYCIE WARSZAWY in Polish 15 Nov 85 p 2

[Article by (b.k.): "New Products Sought; How to Interest the Enterprises?" ]

[Text] What can we do to make enterprises produce modern products and equipment, in demand by buyers, and still stop breaking records in the consumption of materials and energy? What can we do to move us up a little higher from the next-to-the bottom place in European export statistics?

This question recurs like a refrain at national and regional conferences, in industry, research centers, at the top levels, and in private conversations. The problems of technical advancement or modernity of production seem to be a rallying point at which all of the weaknesses and neglect of science, technology and the management come to the fore. That it is not easy to find a solution is shown by the discussions which have been going on for years.

On the 14th of this month some proposals on this matter were submitted at a meeting of the Task Force for Technical Advancement in the Commission for Economic Reform under the chairmanship of Prof Jan Kaczmarek, deputy to the Sejm and president of NOT (Chief Technical Organization). In a report prepared by one of the NOT committees, the initial assumption is that the "key stimulator of technical advancement is demand for innovation on the part of enterprises." This means that we will have new products on the market when the enterprises want to produce them.

But what should we do to make them want to? We should make the enterprises' profits and the workers' earnings dependent upon the application of technical advancements, with the threat that if advancements are not made, profits and earnings will be reduced, all the way to bankruptcy if necessary. Enterprises should also be provided the conditions for producing new items and undertaking the risks that this entails. Workers who do their job well should obtain much higher wages than those who do mediocre work. This applies not only to enterprises but also to scientific-research institutions and design offices. In creating all kinds of stimulators, "unconditional reductions" should not be applied. All incentives must be of an economic nature with the rules and rates known to all partners.

It is also proposed that a mechanism be introduced which would tie the price of the product or service to its utility value. In order to do this, a system of quality control and certification of products must be developed. NOT suggests that the prices of products which have a high guaranteed-repairs rate be reduced 30-39 percent and all of the costs of claims and guaranteed repairs be charged to unwarranted costs. The price-fixing system should be a controlling factor in economic processes. That is why the cost system of establishing prices should be discontinued and the price should be fixed according to the utility qualities of the product, its durability, the comparable price of the products and services abroad, and what is very important--these prices should be systematically reduced as the engineering and technology become outdated.

NOT also proposes that the tax system be changed, and that disinvestment of capital assets be checked to a greater degree than in the past by allowing enterprises greater freedom in administering their funds for amortization.

In view of these justified postulates, the only question that arises is why is it taking so long to decide these technical-advancement matters? Why are not ongoing analyses being conducted which would signal that certain economic, financial and organizational mechanisms are not operating efficiently? I recall many statements by heads of ministries who believed 3 years ago that matters relating to technical progress or modernity of production in general are on the right track. The application and correction of economic mechanisms should not be based on belief alone. There are, after all, ways of verifying how such a system will function and what will come out of it before it is applied on a wide scale in thousands of enterprises and research centers. There are analysis methods, simulating models, and samplings, which can be applied in one or several selected subsectors, institutions or associations. Finally, an efficiently functioning analysis and warning system should be set up in case the applied regulations operate exactly the opposite of what is intended. This pertains to such diverse matters as various types of taxes which hamper production of items in demand, or permitting thousands of people to take early retirement in expectation of an ostensible labor surplus, etc. Thus, before the next revisions to reform are made, even those which may seem to be the most desirable, perhaps it is time to think about making them right now, on a smaller scale, as a test.

9295

CSO: 2600/174

ECONOMY

POLAND

# NEW REFORM MEASURES IN FIVE-YEAR PLAN SUMMARIZED

Warsaw RZECZPOSPOLITA in Polish 26 Nov 85 p 3

[Article by Bozena Papiernik: "New Reform Measures--Directions and Details"]

[Text] The difficult problems with which the economy must contend during the next 5-year plan requires not only a refinement of the instruments of reform, but equally a growth of initiative in all of the organizations which will implement this reform, particularly in the enterprises. With the understanding, therefore, that the economy cannot be transformed simply by passing laws or perfecting reform mechanisms--for that would be a very narrow view of the problem--we are concentrating in this discussion on precisely that part of reform which pertains to legislation and instrumentation, discussing those measures which will be most important in the next 5-year plan.

Passing over that which arouses the greatest interest and emotion--the matter of taxes on above-norm earnings--we will begin this review of future reform mechanisms, emphasizing those parts that are new, with the equally sensitive area of prices.

According to the amended law on prices, beginning next year it will be possible to establish prices in four ways: at one extreme, prices can be fixed freely; at the other extreme, administrative, stringent bans against price increases can be issued. The third possibility is that of price-growth ceilings for specific groups of commodities, and the fourth permits arbitrary increases provided that application is made 3 weeks in advance to the district office of price affairs, which can postpone the increase for 3 months.

It is interesting to note the very different approach to contractual prices and the attempts to extend them, in accordance with the rules of reform, where this is possible because a buyers' market and market competition is being generated.

Work is now underway on a future price-fixing chart and it is still hard to say how far the range of freedom will be extended and to what degree it will still be necessary to apply administrative intervention. From the initial explanations of Minister Wojciech Pruss of the Office of Price Affairs at the conference of enterprise-consultants on economic reform, it appears that this intervention will affect producer prices to a greater degree than market

prices, with the exception that turnovers of spare parts will be excluded in order to stimulate their production.

An essential and legislative condition, aimed at stimulating price mechanisms, is the abandonment of the "glaringly high" price formula, which in practice helped to popularize the so-called "costly" price formula, wherein prices are calculated according to costs incurred, regardless of whether these costs are justified or not. However, it is important that price movement not be hampered in cases where high quality and modernity of a product warrants an increase. At the same time, to prevent abuse of this right, penalties for all price violations--overcharging, for example--have been increased 50 percent.

Income tax deserves somewhat broader discussion because, as the term itself indicates, it is the main instrument of division of incomes between the enterprise and the budget. While the tax rates now in effect, the same for everyone, will be retained, the amount of tax assessed will differ by the use of allowances directed primarily at expansion of export. Thus, in assessing taxes, preferences for export to the second payments area [capitalist countries] will be retained and the tax-relief system will favor the maintenance and acceleration of production for export. New and important: The amount of tax will depend on the degree of processing of exported products, which will be divided into three groups: highly processed goods, semifinished goods, and the others.

Enterprises which sell highly processed goods abroad and send them to countries which are on a list established by the Minister of Foreign Affairs, will be entitled to the highest tax relief, amounting to up to 8 percent of the value of the exported goods. Export of semifinished goods, under the same conditions, carries a tax reduction of 6 percent of the value of the export. The lowest tax relief, 2 percent of the value of exported goods, applies to exports of raw materials and materials which are centrally controlled and needed in this country also.

The income-tax reduction due to better management of electric energy and fuels is also new. It may amount to as much as 50 percent of the value of energy saved, but the former Main Inspectorate of Energy Management agreed to develop standards of consumption, which is, obviously, the first condition for determining the amount of savings and also the financial rewards which ensue.

Other entitlements to tax relief include: processing and procurement of secondary raw materials, application of scientific and technical advancements, and greater allowances for "protective" capital projects (environmental protection).

Also new and worthy of mention is the ability to transfer the tax relief to the coproducer responsible for the production.

That portion of the rule for calculating income tax was also amended which pertains to costs and losses deemed to be unwarranted. Changes were also made in penalties for uneconomical management of fuels, energy, raw and other

materials. That is, procedures promoting savings were enhanced to adapt them to the strained fuels and energy situation in the next 5-year plan.

Financial policy in the next 5-year plan will be directed towards the following goals: A halt in the disinvestment of capital assets and support for faster expansion of those branches and sectors of the economy which require this for social reasons (housing construction, the food complex, educational facilities), or are the most promising and profitable from the standpoint of ability to export and economic efficiency. Both in view of the need to begin changes in the structure of the economy and the need to repay the foreign debt, the mechanisms which stimulate export, which is also a lever in the development of technical progress, are of crucial importance.

Of the new or modified measures to achieve these goals, which are the most important?

In the area of export, foreign-exchange account allowances will be retained and improved. The recent Council of Ministers resolution provides that an objective rule will be applied to establish foreign-exchange allowance rates in the National Socioeconomic Plan for particular sectors of the national economy, or dependent on the specific nature of the organizational units (small-scale industry, higher schools, scientific-research institutions, transportation enterprises).

The Council of Ministers also passed a resolution on instituting an experimental system of ruble allowances, which will go into effect in 1986 and then depending on how it functions, may be retained. This system, just like the retained-hard-currency earnings allowance, is intended to allow those enterprises which have enough earnings to do so, to purchase goods, e.g., spare parts, for rubles, in addition to the normal trade exchange allowed in annual protocols. It is also envisaged that some of these funds can be spent to cover costs of official travel abroad.

To finance important pro-export investments, an Export Development Bank will be established.

A reminder: In this entire tax and finance system, export is the area that has clear priority. It is the only area that is entitled to reductions in taxes on above-norm earnings and the first to be entitled to income-tax relief.

Beginning next year enterprises have the right (for the first time) to establish an Applications Results Fund, which should promote innovations. The source of this fund will be profits. There will be a 3-year period of computing tax deductions and applications results, except that the first year the deduction cannot be more than 10 percent, the second year not more than 8 percent, and the third year not more than 6 percent.

As to amortization writeoffs, the general rule that they will be split evenly between the enterprise and the budget will be retained, except that relief will be granted in regeneration and modernization work, and in financial

policy different procedures are envisaged--procedures which take into account the extent to which the capital assets of the enterprise have been depleted.

In order to establish a flow of funds between enterprises to achieve common expansionist goals, including restructuring of the economy, a decree will become effective on 1 January 1986 which is aimed at creating incentives to combine funds, to create joint consortiums, foundations, banks, etc.

Regulations are being drawn up to permit enterprises to issue bonds. Their interest rate, in every instance, will be fixed. They will be guaranteed by the enterprise's assets. The purpose of issuing bonds is to obtain additional funds for purposes of development. For example, bonds for automobiles are anticipated (although no one has officially announced them).

That, very briefly, is what the more important of the new reform measures look like. Most of them (the income tax regulations, the tax formula on above-norm earning) will be in effect during the entire 5-year period, which should enable enterprises to better plan and schedule their operations over the longer timeframe.

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ECONOMY

ROMANIA

## MEASURES TO INCREASE CRUDE OIL, GAS PRODUCTION

Bucharest REVISTA ECONOMICA in Romanian No 42, 18 Oct 85 pp 4, 7

[Article by Stefan Costea, technical director, Bolintin Drilling and Extraction Trust]

[Text] Assuring the necessary raw materials, and particularly the energy resources required by the national economy, both for the remainder of this year's fourth quarter and to prepare for the 1986 production, represents one of the major concerns of all parties involved in the extraction industry, including those who contribute indirectly (machine construction, chemistry, metallurgy) to the production planned for this branch.

As part of this effort, a special role is played by oil extraction activities, where as Nicolae Ceausescu pointed out during the 3 August session of the Executive Political Committee of the Central Committee of the RCP, decisive measures are needed to obtain the best exploitation and operation of means and installations, reduce losses during interventions, increase the degree of recovery, place new wells in service more rapidly, improve the organization of production, drilling, and work brigades and formations, and so on, all of which can and must contribute to a more sustained gas and oil production growth, and to the fulfillment of the plan's provisions.

The experience of many oil trusts and enterprises throughout the country, and the results obtained so far, demonstrate that all the conditions--material, technical, and human--exist to fulfill this year's production, and to increase in a more sustained manner the volume of exploited oil resources. These are also the concerns of the workers' collective at the Bolintin Drilling and Extraction Trust, Giurgiu County, which during the first nine months of the year has succeeded in obtaining significant increases in gas production (111.1 percent), gasoline production (104.4 percent), and drilling (101.1 percent).

Significant among the concerns of the Bolintin oil workers to further increase the production and delivery of additional amounts of oil and gas, are the measures undertaken to increase the recovery factor (FR), resulting in the actions carried out at the Videle, Poeni, Clejani, and Braila production derricks, which have increased the volume of recoverable reserves by more than 2,200,000 tons. Some examples are: underground combustion by lighting the K1 well at the Blejesti deposit (FR increased from 26 percent to 32 percent);

preparation work for implementing combustion and reaction techniques on wells at the Videle Sa 2 Sud deposit (FR from 20 to 42 percent); water injection at the Preajba Sud Sa base deposit (FR from 31 to 41.7 percent); and so on. Considering the results obtained along these lines, and the measures that will continue to be taken, it is estimated that the task of the 1985 program, namely to obtain 3,640,000 tons of recoverable crude oil reserves, can be completed both for the trust as a whole and for each individual derrick.

At the same time, the attention of our specialists is consistently focused on increasing oil and gas reserves by intensifying geologic and drilling activities. Research in that direction has disclosed new accumulations of oil and gas, obtaining a volume of 430,000 tons of crude oil. For instance, a simple inventory of Pliocene sands at the Independenta structure disclosed crude oil reserves of 1.4 million tons, for which a special program has been formulated at the Braila derrick. Concurrent seismic prospecting, an activity which is continuing, has shown more than 50 profiles whose computer processing and interpretation will lead to the opening of new promising zones for oil and gas.

As their first priority, the measures initiated and those underway seek to assure a production level that will allow normal activities during the winter of 1985/1986. Notable in this respect are the collective's concern for faultless performance, particularly regarding the insulation of steam pipes and gas installations; testing, insulating, and placing boilers in operation; burying gas, blending, and water injection conduits; and so on. At the same time, 20 new work formations have been established in all basic activities (well intervention, capital repairs, and production tests), aimed at covering the large amount of work, so as to reduce to a minimum the number of wells that do not produce, produce poorly, or that are awaiting capital repairs or placement in service.

Although significant achievements have been obtained, they nevertheless fail to meet forecast levels, particularly for crude extraction (93 percent of the plan has been fulfilled over a period of nine months). The situation is such that at some wells and derricks, and during certain periods of time (especially during the first months of the year), it was not possible to complete the daily planned tasks. Although significant efforts were made subsequently, the backlog could not be fully recovered.

The causes for this situation lie primarily in shortcomings of our own. In drilling activities for instance, mud and cement of inadequate quality in exploitation strings, the utilization of installations at inappropriate parameters, and so on, have delayed the operation of some gas and oil wells at the Bragadiru and Postavaru structures. In oil extraction, delays in implementing advanced technologies (well stimulation to increase flow by means of thermal, gas, and chemical processing, extending underground combustion to the Videle and Balaria structures), delayed interventions to eliminate active fluid corrosion in oil and process water conduits, and to improve the operating life of basic equipment, and so on, have resulted in large discrepancies from the plan.

In addition to our own shortcomings, some others were due to the failure of all suppliers to provide on time such necessary materials as casings for new wells (about 26 extraction wells are currently awaiting those), or piping (extraction pipes, blending conduits), which are causing 40 wells to await placement in operation, and so on. At the same time, builders are still working inefficiently on some investment sites, leading to some delays at the Videle Compressor Station No 10 (which determines the start of combustion expansion to Videle Sarmatian 3), the Anghelesti D2 crude distribution storage, the Poeni No 9 crude storage, gas collection points in the Jugureanu and Padina zone, and so on.

Starting with the existing situation, and with the significant reserves of the trust, the workers' collective has formulated a broad program of measures for the next period, designed to recover delays and fulfill the plan's provisions. Predominant among these actions are: performing 250 sand consolidations on some wells and introducing alorex filters; technical operations on wells, with selective pouring of concrete, footings, additions, and redrilling at 249 wells, and 60 modifications of chokes at flowing wells and gas lifts; completing capital repairs on three wells at the Liscoteanca structure, which will be equivalent to a gas production increase of more than 100,000 Nmc/day; and so on.

At the same time, greater attention will be devoted to increasing the FR, especially to assure higher production for 1986. The following are notable in this respect:

Expanding underground combustion by lighting about 20 wells, and placing in operation the Videle Vest I compressor station (increasing recoverable reserves by 530,000 tons);

Initiating water injection at the Valea Postei Albian deposit (increasing the FR from 21 percent to 30.3 percent), and the micellar solution test at the Preajba N+C Sa basic deposit (increasing recoverable reserves by 500,000 tons);

Injecting water with polymers and placing in operation the injection and solubilization station at the Liscoteanca Meotian deposit (increasing the final FR from 38.2 percent to 42 percent, thus increasing recoverable reserves by 110,000 tons); and so on.

All these measures make it possible for the Bolintin Drilling and extraction Trust to fully honor its plan provisions for the this year, contributing ever higher amounts of crude oil and gas to satisfy the growing demand of the national economy for energy products and raw materials.

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ECONOMY

ROMANIA

# NEED FOR BETTER QUALITY METALS STRESSED

Bucharest REVISTA ECONOMICA in Romanian No 42, 18 Oct 85 pp 5-7

[Article by Vasile Boescu and Cristian Gorie]

[Text] In recent years, and especially during the current five-year plan, the quality improvements that have occurred and are still taking place in the machine building industry, have required the steel industry to amplify its efforts to promptly provide the needed supplies of good quality metal. We are referring in particular to the construction of nuclear power plants, the development of aeronautics, precision mechanics, electrical machinery, and electronics, the increased production of sea and river vessels, motor vehicles, and so on, all of them objectives whose achievement is based on the availability of metals with superior physical and mechanical properties. These metals are produced at the large combines of Galati, Hunedoara, Resita, Tirgoviste, Otelul Rosu, Cimpia Turzii, and so on, whose current technical, technologic, and human potential makes it possible to obtain high quality steels and mill products of different sizes and shapes, in a diversified selection and consistent with the needs of the national economy and exportation.

In this context, REVISTA ECONOMICA has organized an examination of the country's large steel combines, to indicate their present and future concerns for improving the quality of metals so as to assure the conditions necessary for fulfilling the priority objectives of the industry's advanced branches, and implicitly to obtain products that are equal or better than those available throughout the world. In this issue, we present the actions of the Galati Steel Combine, specialized in the fabrication of flat milled products.

## Qualitative Improvements of Production, Changes with Multiple Meanings

The Galati Steel Combine presently assures about 50 percent of the country's metal production by fabricating more than 400 types of steel in a broad range, beginning with general purpose carbon steel and ranging through alloyed and weakly alloyed, high strength, thermally treated, high purity, low-temperature strength, and high weldability steels. These are used to manufacture--in more than 8000 types, sizes, and shapes--flat products for containers, tanks,

offshore drilling platforms, sea and river vessels, nuclear power plants, motor vehicles, and so on. The present stage is obviously the result of extensive efforts made to improve production activities, perfect metal formulation and lamination technologies, extend the extensive and intensive utilization of fixed assets, raise the extraction coefficient, reduce the consumption of materials, fuels, and power, build new installations, and so on. But the basic activity of the combine during the current five-year plan is the sustained concern to powerfully diversify production by introducing a large number of new steels of a high technologic and quality level. This situation, imposed on one hand by the growth and diversification of users' needs, and on the other hand by the need to reduce importations, has led the combine to raise its average quality indicator, and implicitly to improve its efficiency and profitability, with the average price increasing by about 1000 lei/ton in recent years.

The magnitude of the production's quantitative and qualitative diversification is evident when we consider for instance that more than 30 new steel types were adopted during last year alone, with 18 more since the beginning of this year. The majority of these are superior steels, with advanced characteristics, which assure the creation of superior quality flat products. This statement is supported by many examples of metal products that have been adopted and introduced in production. Among these are: a plate for offshore platform footings, which requires tempering and hardening heat treatments; a metal for the heavy water and nuclear industry; a steel plate whose quality is controlled with ultrasonics (the quantity of this material produced during the first nine months is more than one-third higher than that produced during the same period of last year); high quality sheet metal for Olcit automobiles, whose introduction has completely eliminated importation; and so on.

Concurrent with the adoption of new products, the combine has reduced the share of various common steels (passivated and non-passivated OL 37, passivated OL 42, and so on), whose specifications are poorer, and which do not fully meet the present needs of users. At the same time, the broad diversification of production has not only increased the satisfaction of domestic demand, but also expanded exportation, the combine currently distributing about 25 percent of its products in international coordination actions sponsored by our country, and exporting good quality, competitive products to about 39 countries in the world.

An examination of the leverage that has been used to assure the conditions necessary for a good qualitative and quantitative production diversification, forces us first of all to consider the encouragement of technologic progress. In this respect, we note that manufacturing upgrading has been and is constantly supported by broad efforts to formulate and adopt advanced, improved technologies, for two reasons: one, to support the improvement of product quality and technical specifications, and two, to reduce the consumption of materials, fuels, energy, and manpower. Notable are the introduction of steel casting technologies such as vacuum casting and decarburization, argon shrouding of steel jets during casting (used to produce the sheets for Olcit cars), as well as sulfur reduction outside furnaces by

injecting granulated calcium silicate, the expansion of unconventional technologies (sintering, fabrication in controlled atmospheres), continuous casting, the use of good quality heat generating and insulating powders and plates, flame cleaning of semifinished products, and so on. At the same time, the combine has developed and diversified heat treatments and assured close control of installation operating parameters (as in the case of the No 2 mill).

Parallel with the adoption of new technologies, actions were taken to modernize production facilities, with direct results on product quality. Some of these actions were aimed at increasing production automation (91 percent of total cast iron production operations have been automated), installation of thyristors for major actuators, upgrading the finishing train of the hot strip mill, and completing the installation of the control equipment needed to improve production quality in the majority of manufacturing sectors.

#### Perturbations in Maintaining Production Schedules

It is clear that although substantial, the production results of the Galati combine do not fully meet its available capabilities. This statement takes into consideration delays in adopting some products (transformer plates for instance), and gaps in fulfilling the plan for the first nine months of this year (amounting to about 300,000 tons of steel finished mill products). An examination of the causes leading to this state of affairs is important insofar as they appear as significant reserves for improving activities, with direct implications on the qualitative and quantitative levels of production.

An analysis of these causes shows that a large role is played by those objectives which do not depend directly on the organization and conduct of production at the combine. By this we mean first of all, the failure to obtain the scheduled quantity and quality of raw and basic materials, which has had and continues to have significant negative influences. In the production of plates with superior parameters for instance, and particularly in the case of plates checked by ultrasonics, units of the Industrial Central are finding it difficult to supply refractory products, superalumina or basic materials for steel casting crucibles; refractory devices for sintering and jet shrouding; powders and plates with improved thermal insulation properties, to prevent shrink porosity; base plates for distributor lining, and so on. Possibilities for providing such materials--particularly in terms of quality--do exist, and in this statement this we are keeping in mind that while experimental lots do meet the desired quality level, mass produced ones no longer do. It is the duty of suppliers to use appropriate technical and technologic means for obtaining these products at a high quality level and to rapidly introduce products that are not yet in production (such as dolomite bricks, which are so necessary to the combine for expanding argon shrouding of steel casting nozzles, a technology which imparts excellent quality to steel sheets).

In the same context, we are finding shortcomings in coordination activities and in assuring the necessary means of transportation. One example is conclusive in the first instance. While some units (the Resita and Cimpia

Turzii combines) successfully fulfill their contracts to deliver to the Galati Combine vacuum cast steels produced in electric or Martin furnaces, others (COS Tirgoviste, CS Hunedoara) show serious delays. In the second instance, the means of transportation equally affect the supply of raw and other materials (about 70-80,000 tons of raw materials must arrive at the combine daily, requiring 1100 railway cars), and the distribution of finished products. Failure to provide the cars needed for product distribution often leads to situations in which the product, the stored plates in this case, are covered with others of different dimensions and qualities, so that when the transportation does become available, they cannot be loaded; in many cases, and as a last resort, they were fabricated anew.

In another context, a tendency noted in some machine building enterprises, to artificially raise prices by using expensive materials, generates supply shortages, ultimately leading to a waste of high quality metals. While it is true that a commission has been created to approve the consumption of alloyed steels, it cannot cover the entire range of superior metal products. For instance, the trend to use ultrasonically checked sheets whether this quality control is needed or not, can only bring about losses, since these sheets require special technical and technologic production conditions and thus have a relatively low profit coefficient.

A particular problem is the AMC (measurement and control equipment) endowment necessary for production processes, an action which is not meeting the demand despite special programs of measures taken in this regard. Moreover, some of this equipment is technologically inadequate (does not fully perform the expected measurements) or of poor quality. One relevant example is a supplier, which in order to reduce specific consumption, produced thermo-couples using wires with a diameter of 0.3 mm instead of 0.5 mm; these did not last as long and had to be replaced more often, thus doubling the effective consumption.

It is no less true that a number of subjective factors coexist with these objective causes, which have negatively affected the production process. Some of these are the failure to establish efficient collaborations leading to incomplete investments (such as steel heat decarburization in vacuum, insufflation of powdered reactive materials, continuous casting of stainless steels), exceeding consumption standards for raw materials, fuel, and power, low profit coefficients for some products, and so on.

These and other shortcomings are the subject of constant analyses, followed by operational measures. Unfortunately, difficulties in some sectors of the combine, regarding steady supplies of materials and electric power, have led to reduced responsibility about resource utilization, all problems being assigned to "objective" causes. This attitude obviously does not have positive results, but on the contrary generates waste and an inefficient management of supplied resources. Some shortcomings also exist in the effective utilization of tools and installations (furnaces, LD ovens, mills) due to poor organization of production processes, as well as to delays in current and capital repairs.

The qualitative step achieved with the completion of programs to adopt new products, needs to be closely knit with measures and actions appropriate for the full utilization of the technical and human potential, so as to fulfill in an exemplary manner the physical production of all products. Existing conditions allow it; a good organization of the production process will assure--by the end of the year--a recovery of delays and complete fulfillment of economic contracts.

#### Objectives for 1986, New Steps to Assure High Quality

The efforts made by the combine's specialists during the current five-year plan, to improve production quality, also have positive repercussions for the future. For the 1986-1990 five-year plan, the combine's specialists believe that all the necessary conditions are created to produce flat milled steels that will meet all the quantity and quality demands of the national economy and exportation. Continued research and experiments by specialists at the combine, the Institute for Metallurgical Research, and the University of Galati, are aimed at new types of steels and milled products for special requirements.

Given the trend for greater production of high quality steels, the combine is pursuing broad programs aimed primarily at higher labor productivity, lower material consumption, and continued improvements in the technical specifications and quality of products. During the forthcoming stages, the following will be placed in operation: new facilities for heat treating steel under vacuum and for advanced desulfurization through injection of powdered materials; a facility for 300,000 tons of standard sheet metal per year; a hot strip mill for special plates; a cold plate mill for 500,000-600,000 tons per year, which will also have a hydrochloric acid pickling line; a mill for sheet thinner than 0.3 mm; one line for tinned steel plate and another for zinc plated steel; a mill for welded pipe for natural gas transportation; as well as expanded thermal and mechanical treatments to reduce the consumption of steel alloys. Moreover, a number of investments will be completed to substantially improve product quality, diversify production, and increase the recovery of recyclable resources. Metal fabrication installations will continue to be modernized by changing to combined insufflation converters. All these actions will lead to the introduction and fabrication of new types of high quality metal products (tinned and zinc plated sheets, normalized sheets, and so on), with the Galati Steel Combine becoming further involved in providing the technical and material basis for all sectors of activity in the national economy.

Obviously, also being considered are some organizational measures intended to assure better raw and other material supplies on one hand, and better utilization of these supplies on the other, with significant reduction of material and energy consumption. In this respect, special attention is being given to optimized transportation, by increasing the proportion of water transportation both for supplies, and--especially--for product distribution. The fact that facilities for steel products (piers, powerful cranes, storage

areas, and so on) have not yet been created at the Danube ports, requires that the Ministry of Transportation and Telecommunications hasten the measures needed for the Galati combine and its many customers to fully use the advantages of water transportation.

In the same context is the need for more rational supply to customers by delivering metal in fixed and multiple lengths. Given that the number of customers ranges in the thousands, and that their needs range from hundreds of kilograms to thousands of tons, it is necessary for the county bases of the Ministry of Technical-Material Supply and Control of the Management of Fixed Assets to undertake the cutting and dimensioning of metals according to demand, thus achieving a more rational distribution of products consistent with the creation of conditions for materials savings.

Predominant among the measures planned for the combine for the next five-year plan, are those concerning the massive recovery of reusable energy resources, consequently reducing the combine's demand on the national power system, as well as better indicators for the utilization of basic equipment, thus increasing labor productivity while reducing energy consumption.

Discussions of the 1986 plan tasks in the general assemblies of workers, as well as the program of measures formulated to support these tasks, will strengthen the concern and solutions necessary for a new qualitative step in the combine's entire activity, so as to assure the fabrication and production of metals with high physical and mechanical specifications, appropriate for the demands of the new stage of development of Romania's economy.

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ECONOMY

ROMANIA

DEFICIENCIES IN FALL SUGAR BEET HARVESTING, PROCESSING

Bucharest REVISTA ECONOMICA in Romanian No 42, 18 Oct 85 pp 8-9

[Article by Gh. N. Iosif]

[Text] In our country, sugar beet is one of the technologic crops which brings among the highest income per unit area. In addition, it makes the best use of manpower throughout the year in agricultural units, particularly in cooperative ones. Moreover, sugar beets have the significant economic advantage that their secondary products (leaves, stems) and the residues from their industrialization (dregs, molasses) substantially increase the fodder supply in their zones. All sugar beet suppliers deliver large amounts of dregs as a function of the quantities they receive, at a price of 35 lei/t. At the same time, sugar beet growers do not pay railway transportation taxes for the dregs derived from the sugar beets they deliver.

The continued expansion of sugar beet crops, and their inclusion in land assignments, are part of Romania's process for intensified agriculture. During the next five-year plan, sugar beets will play a predominant role among technologic crops. The sugar production planned for 1990 (980,000-1 million tons, 3-5 percent higher than the 1988 level) will be obtained from high yields per hectare (40,000-42,000 kg).

As any technologic crop, sugar beets are characterized by strong territorial concentration, which is further emphasized by the location of sugar plants on the same territory. Despite this, sugar beets should be concentrated in large agricultural areas as a function of land and climate conditions, which for the most part determine the yield per hectare. Of similar importance is the concentration of cultivating units, since many of these are smaller than 100 hectares.

Full and complete utilization of the entire sugar beet production, with the highest possible sugar yield, implies sound and well scheduled harvesting, transportation, and delivery so as to supply sugar plants with raw materials at their highest level, and to avoid the stagnation of harvested sugar beets in fields or in receiving areas. That is why it is absolutely necessary to periodically analyze the correlation between harvesting, transportation, and

processing capabilities, keeping in mind that the time delay between these actions greatly influences the planned sugar production. Only by smoothly combining the needs of cultivation units with those of processing plants, and by assuring a technologic discipline imposed by harvesting, transportation, storage, and processing, is it possible to obtain high sugar beet production and higher processing yields, all of them under conditions of high economic efficiency.

#### Urgently Solved Problems in Enterprises

How are matters proceeding these days at the Urziceni Enterprise for Sugar Beet Industrialization (IISZ)?

Located in an area favorable for sugar beet cultivation, this unit (founded in 1976 and fully operational two years later) is currently assigned an agricultural area of 12,705 hectares planted with sugar beets, located in collective agricultural units and state agricultural enterprises in the counties of Ialomita, Prahova, Dimbovita, as well as the Ilfov Agricultural Sector. The large area of raw materials supply is primarily due to the enterprise's large processing capabilities (4000 tons in 24 hours). In order to carry out its activities consistent with the technical and technologic requirements of sugar beet cultivation, three sugar beet cultivation centers (Ploiesti for Prahova County, Urziceni for Ialomita County, Chitila for the Ilfov Agricultural Sector and Dimbovita County) and 13 receiving areas have been established.

Even though a significant area of raw materials is available, the plant only seldom operates at full capacity because of reduced deliveries from suppliers as well as shortcomings in the organization of supplies. Scheduled to operate 120 days per year, the Urziceni IISZ actually works only 70-100 days. During this year for instance, the plant started operations on 3 September, but the sugar beet processing capabilities were used at a maximum of 60-70 percent. The lack of raw materials is caused by the failure of agricultural units to respect their delivery schedules. In addition, this year's unfavorable climate (drought) brought sugar beet yields per hectare far below their planned levels; by 11 October for instance, the Ialomita County agricultural units assigned to the Urziceni IISZ had an average production per hectare of only 14.7 t instead of 38 t. Similar situations prevail in the other zones and counties; the average yield per hectare in the agricultural units of Prahova County for instance, a county which together with Ialomita makes the greatest contributions to the Urziceni IISZ, was only 60 percent of the planned one. A similar situation also prevails in the sugar beet units of the Ilfov Agricultural Sector and especially in those of Dimbovita County, where the average productions per hectare were only 38 percent of planned levels.

These low yields and the harvesting shortcomings in agricultural units hinder the proper functioning of industrialization. The failure to fully utilize the full capacity of the enterprise's technical equipment weighs heavily on production costs, with profound repercussions on the plant's economic and financial results. That is why the problem of scheduled raw materials

deliveries is a very serious one. Compliance with sugar beet delivery schedules on the part of cultivation units will not only lead to an efficient utilization of production facilities at industrialization units, but will also cause this readily perishable product to be harvested during its optimum period. From this standpoint, the units assigned to the Urziceni plant have fallen far behind in their delivery schedules, as evidenced by statistical data. In Ialomita County for instance, no agricultural unit has met its planned delivery levels for sugar beets; some collective agricultural units delivered only about 40 percent of the planned amounts. With the exception of the Potlogi and Titu unified agroindustrial councils, all the other units in Dimbovita County failed to meet their delivery schedules. Failures of this sort are also encountered at the unified agroindustrial councils in Prahova County and the Ilfov Agricultural Sector.

In order for the Urziceni IISZ to operate efficiently, it must process 400,000 tons of sugar beet during its operating season, a figure which specialists estimate will not be achieved.

An equally important role is played by the quality of the industrialized raw materials. The sugar content planned for this year was 13.8-14 percent, but the figure indicated by 30 September was only 10.5 percent, a situation that can be somewhat explained by the extended drought and short vegetation period of this crop. The percentages indicated are much lower than those which can be achieved in this zone of the country.

An important role in the industrialization of sugar beets is played by transportation. An efficient process, which during this period uses all available means of transportation, makes it possible to substantially reduce the percentage of loss through dehydration. Sugar beets must be transported and processed immediately after being harvested from the ground; that is why a timely and sufficiently large transportation capability is an obligation for all those who participate in the production, transportation, and industrialization of this product. The situation prevailing at the Urziceni IISZ does not optimize this activity, primarily because of discrepancies between harvesting and transportation capabilities. Serious shortcomings exist in the transportation of sugar beets over distances greater than 30 km, which takes place on the railway. The territorial distribution of sugar beet receiving stations over a large area requires the formation of trains shorter than 30 cars, a problem which has not been solved by railway units until now, and one which has negative repercussions on the quality of the sugar beets that must be industrialized. The role of railway transportation on the scheduled supply of sugar plants is decisive, and is illustrated by the large amount of products which must be moved by these means. At the Urziceni IISZ for instance, this system will be used to transport about 72 percent of the production harvested at supply units.

#### Principles and Basic Criteria in Sugar Beet Harvesting and Industrialization

Sugar beet cultivation is highly intensive, and is defined by high production costs per unit area. Among these costs, manpower plays a major role, and the highest utilization of manpower occurs during harvesting. The disadvantage of

this crop is that its optimum harvesting period competes with that of corn, to which is allocated the largest volume of manpower. That is why agricultural units must devote great attention to the varieties of sugar beets which they cultivate. Agricultural practice, as well as the recommendations of specialists indicate that multi-germinating varieties should be cultivated where sufficient manpower is available, while other units should cultivate single-germinating varieties. Although the latter contain a higher percentage of sugar than the first, they are more demanding, requiring a certain amount of maintenance technology. Moreover, under the conditions of sugar beet cultivating areas in Ialomita, Prahova, and Dimbovita counties, and in the Ilfov Agricultural Sector, single-germinating varieties had 1.2 percent more sugar than multi-germinating ones.

The problems arising for sugar beet during this period, are related not only to the harvest of the actual production, but also to the preparation of the germinating bed for next year's production. The technology begins with plowing and fertilizing activities; consequently, in addition to the special importance of varieties in increasing the sugar content (the major qualitative factor), it is imperative to strictly respect and perform plowing and fertilizing activities. Sugar content is increased by appropriate proportions of fertilizing elements (nitrogen, phosphorus, and potassium).

Given all these factors, it is necessary for the sugar beet harvesting campaign to focus on several basic principles and criteria, which must be considered in the organization and execution of technical processes so as to increase economic efficiency. Particular attention must thus be devoted to the processing capabilities of sugar plants (so as to establish the periods of sugar beet harvesting, supplies to plants, and the silo storage program) and to the different stages of sugar beet maturation. The harvesting of this crop must therefore be hastened in all zones of the country and be carried out as a continuous operation together with transportation, thus eliminating the possibility of having sugar beets overcome by early frosts and ice, and by atmospheric changes (fall and winter rains), which would substantially hinder these activities. Since a drop in air temperature below 10 degrees stops dehydration, it creates favorable conditions for harvesting a larger production which exceeds the daily processing capabilities of the plants; the sugar beet surplus can be stored in silos which fulfill all conservation conditions.

Experience with sugar beet harvesting and industrialization shows that the selection of crops is very important, so that those which have reached technologic maturity can be harvested under the best conditions. Premature, undifferentiated harvesting means that a significant amount of the crop is not yet sufficiently mature, with the result that the sugar yield is below its potential. A similar problem is created by harvesting beyond the optimum period. That is why specialists in sugar beet cultivation and industrialization must examine crops and indicate the staggering of the parcels that need to be harvested. Compliance with this requirement will reduce losses and at the same time increase the amount of sugar obtained from industrialization, while reducing the consumption of materials and energy per ton of product.

Increased sugar beet yields per hectare imposes the adoption of measures to reduce harvesting losses. It is particularly important to adjust and supervise stem cutting and harvesting machines, so as to avoid losses caused by plants left in the ground, by waste, and by the crushing of plants by machines.

The implementation of all measures for an efficient organization of sugar beet harvesting, transportation, and industrialization is a professional duty for all those involved in this large technologic crop. Agricultural units, and especially those which must assist in the effective transportation of production to processing plants (especially railway units), thus acquire exceptional responsibilities considering the large quantities of sugar beets that must be transported in the coming days. An efficient and effective solution to all these problems represents an essential condition in the general efforts at substantially increasing the production of sugar beets and sugar.

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ECONOMY

ROMANIA

STATUS OF PRODUCTION, EXPORTS IN METALLURGY

Bucharest REVISTA ECONOMICA in Romanian No 42, 18 Oct 85 pp 10-11

[Article by I. Georgescu]

[Text] We continue to present the Romanian exhibitors in the Bucharest International Fair, with another basic branch of Romanian industry, metallurgy. Metallurgy has an old tradition in our country, reaching several millenia into the past. Among other things, the British Museum has the first iron ore furnace in Europe, dating back to the Ninth Century, discovered in Romania at Ghelar, which processed the iron ore found in the vicinity of Hunedoara. As a matter of fact, the Hunedoara Metallurgical Combine will have its 100th anniversary in 1986, and in 1972, the Resita combine celebrated 200 years of activity.

During the socialist years, Romania has become a large steel producer. Along with old steel centers such as Resita, Hunedoara, and Calan, new centers have been created, such as the one at Galati, with a total capability of 10 million tons, the Calarasi Combine, the Special Steels Combine, the Otelinox enterprise in Tirgoviste, and so on. The 1983 steel production exceeded 12.6 million tons, amounting to 556 kg per inhabitant.

The increased production volume occurred together with improved manufacturing technologies, consistent with worldwide trends; the proportion of steel produced by the Martin process was reduced to 53 percent in 1975, and to 36 percent in 1982. In parallel with this, the share of converter steel reached 50 percent and that of electric furnace steel 14 percent. At the same time, the proportion of continuous cast steel increased from 9.6 percent in 1976 to 19 percent in 1982. Cast iron production also grew at a rapid rate both through improved utilization of existing facilities and through the construction of new ones, such as the 3500 cubic meter kiln at the Galati Steel Combine. This has resulted in a higher production of finished mill products, semifinished products for pipes, flat steel alloy products, other types of high quality steels, drawing bars, and other special cross sections.

The metallurgical industry thus provides basic materials for many fields, such as: thick steel plate for the ship building industry, for pressure vessels, for distillation or synthesis columns used in petrochemistry, silicate and

stainless steel strips and sheets, milled stainless and refractory steel bars, high strength alloy wires, vacuum-remelted high-strength steel mill products, metallic cord for automobile tires, pipes for deep oil drilling, small diameter tubing with stainless steel walls, and other products required by advanced technologies.

A decisive contribution to these activities has been made by research and development to formulate new technologies which economize metal, fuels, and energy, and which recycle secondary energy. During the first years of the current five-year plan for instance, the recovery of furnace gas heat has reduced annual specific consumptions by 86,000 tons of coke, 260 million kWh of electricity, and 350,000 tons of conventional fuel, compared to 1975. The standardization of steel types has reduced the number of shapes, sizes, and fabrication processes, with favorable effects on the utilization of mill capabilities and higher labor productivity. Similar effects were caused by the introduction of mechanization and automation in production, and by improved organization and management using computer systems.

The Romanian steel industry is presently involved in a strong development and modernization process aimed at improving the steel production structure and extending the degree of metal processing, all of it leading to higher values per ton of product. As part of this process particular attention is devoted to international economic cooperation in the production of equipment and tooling, in formulating technologies, and in product specialization. Research and design institutes in the branch have signed many technical and scientific cooperation agreements with similar foreign institutes and companies, either to solve problems for foreign partners or to export engineering, technologies, and equipment on third markets.

As a result of the direct or cooperative exportation of steel technologies on the part of Romanian firms, Romanian equipment is now well known in many countries, with commercial importation, exportation, and cooperation transactions being conducted with more than 60 countries.

The Technical Engineering and Design Institute for Metallurgy (IPROMET), with nearly 40 years of experience in the field, has performed engineering projects or filled installation orders for many countries. Some of its more recent achievements are: cooperation in the construction of the Eisenhuttenstadt metallurgical complex in GDR, including an installation for iron ore agglomeration, as well as ore transportation with large capacity dump cars and moving belts; cooperation with India in the construction of the Gauhati thermal generation plant, and in the construction of a pallet plant in Mangalore; cooperation with Mozambique in the construction of 5000 t/year electric steel ovens in Maputo; cooperation with Turkey in the construction of an agglomeration installation at the Karasuk metallurgical complex.

Another well known institution of technical engineering in metallurgy is the Institute for Rolling Mill Design (IPROLAM), which has accumulated an experience of more than one-quarter of a century in the design of metallurgical objectives. Every forward step in the country's steel mill

production, from 314,700 tons per year in 1948, to the present 15 million tons, is associated with the institute's activity. Installations designed by the institute are operating at the Galati Metallurgical Combine, the Slatina Aluminum Enterprise, and the Laromet enterprise in Bucharest, as well as at the new production facilities of the Republica Pipe Enterprise, the Roman Pipe Enterprise, the Iasi Metallurgical Enterprise, the Zimnicea Pipe Enterprise, the Zalau Pipe Enterprise, the Buzau Wire and Wire Products Enterprise, the Cimpia Turzii Metallurgical Complex, the Beclean Metallurgical Enterprise, the Focsani Metallurgical Enterprise, and many others.

A promoter of modern, high efficiency technologies, IPROLAM has also been asked to cooperate abroad in modernizing metallurgical combines such as the one at Maxhutte in GDR, or the Metco pipe mill in Israel.

The enterprises designed by IPROLAM are in turn exporters in demand on the international market. The Buzau Wire Enterprise for instance, exports about 50 percent of its zinc plated wire (which meets the British JLS and DIN 1548 standards) and 30 percent of its soft steel drawn products to such countries as the USSR, Israel, Syria, Greece, FRG, Lybia, Lebanon, Pakistan, Egypt, Malaysia, and so on. The Republica Pipe Enterprise presently exports directly and indirectly as part of comprehensive exportations, drilling rods and pipe for geologic exploration, as well as hot and cold milled pipe for construction (structural).

In conclusion, it can be said that the entire development concept of the metallurgical industry is oriented toward modern technologies which assure high production efficiency, constantly lower energy consumption, a wide range of types, shapes, and dimensions, high quality, and extensive processing.

At the Bucharest International Fair, the products and technologies exported by the metallurgical industry will be shown at the booths of the Bucharest foreign trade enterprises Metalimportexport and Industrialexportimport.

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ECONOMY

ROMANIA

WAYS TO IMPROVE RECYCLING OF REUSABLE MATERIALS

Bucharest REVISTA ECONOMICA in Romanian No 42, 18 Oct 85 p 12

[Article by Corneliu Barnea]

[Text] As part of the comprehensive process of resource economies, the recovery of reusable materials is acquiring increasing importance in the concern that all economic units have for deriving greater value from raw and other materials, and for their efficient utilization in production. The magnitude of this activity, which includes the recovery of reusable metal and non-metallic materials, and of raw materials of animal origin, as well as the fact that in some areas it provides 50 percent and even more of the economy's raw material requirements (particularly for materials in short supply such as tungsten, molybdenum, chromium, copper, and so on), makes this activity one of the major efforts at assuring the materials needed for the steady, normal pursuit of production in industry, agriculture, and other sectors.

During the first 10 months of this year, based on actions and measures taken to intensify the recovery of reusable materials both by socialist units and organizations, and by the population, the Bucharest Enterprise for Recovery and Utilization of Reusable Materials (IRVMR) has succeeded in achieving and even exceeding its plan for a significant number of physical positions. As an instance, for steel alloys containing nickel, tungsten, and chromium, the recovery plan was surpassed by 46 percent, together with the collection of significant additional amounts of steel (2700 t), brass (343 t), lead (504 t), aluminum (210 t), and so on. The same can be said about raw materials of animal origin (cow, pig, sheep, goat, and rabbit skins), where 118-289 percent of the plan's provisions were fulfilled.

The satisfactory execution of collection and recovery activities, and the fact that planned figures were exceeded for the major items, have been unquestionably the result of concrete, technical and organizational actions, beginning with a better organization of production processes and the collection network, as well as a more thorough utilization of manpower and especially vehicles, and ending with improved professional training and manpower qualification. Any examples must consider the greater closeness achieved between decision and execution organs, and sources by: establishing sector centers; changing

relations with suppliers by involving enterprises more directly in the steady collection of materials from them; increasing collection points and providing the necessary equipment throughout Bucharest (68 fixed points and 70 trailers, 250 containers with compartments for paper, metal, and textiles, 4000 minicontainers at stairways in housing association blocks, and so on); lengthening the average daily rounds of transportation resources by 3 km, while obtaining diesel fuel savings of 8 kg per 1000 t/km, and so on.

However, the experience of the enterprise indicates that greater efficiency in the recovery of reusable materials demands continued improvements in the quality of this process. Primarily, this refers to the intrinsic quality of the collection and recovery process, both at the specialized enterprise and at suppliers. The fact that some large metal suppliers (IMGB--Bucharest Heavy Machinery Enterprise, 23 August, Republica, CFR--Romanian Railways--Regional Center, the Aversa pump enterprise, and so on) did not fully meet their contracts, with shortfalls of about 20,000 tons, and that not all enterprises demonstrate a sustained interest in appropriately sorting, storing, and shipping reusable materials to IRVMR's centers, by types and in accordance with prevailing internal stocks and regulations, illustrates once more that more intensive action is necessary in the complex process of resource savings, in order to create a new way to perceive and understand the mechanism of reusable resource recovery.

Fulfillment of the recovery and utilization provisions included in the economic plans of enterprises and socialist organizations, must lead not only to obtaining the anticipated volume of resources, but also to the possibility of their more efficient utilization by consumers. This implies that each supplier of recoverable and reusable materials must be more concerned with improving their primary processing--crushing, grinding, compacting--both by obtaining special equipment and by using it to the fullest. Practice has shown that this leads to significant material savings in their transportation on the railway or with vehicles, and that they can be used more readily by consumer enterprises, especially steel plants.

At the same time, the Bucharest IRVMR as well as all similar units throughout the country assumes comprehensive tasks which reach beyond the fulfillment of their own recovery plans. In particular, this concerns the transformation of these units into real service enterprises to solve all the problems arising at suppliers in connection with recovery. The great importance of the recovery process, and especially the technical problems created by this process, necessitate the existence of specialized units which can provide technical assistance to users about specific problems of the process. Naturally, these units can only be those specialized in recovery, which as the specialists at the Bucharest IRVMR point out, means that a large proportion of the total concerns of these enterprises will become technical assistance to suppliers.

Added to this is the need to improve the collection of reusable materials from the population--meaning cooperation at post offices, commercial units, and especially housing associations, whose share must increase during the upcoming period, as well as the need to improve transportation activities (eliminate empty runs, fully loading every transportation resource, and so on), all of which occupy a large portion of the enterprise's activities.

One especially large objective for the Bucharest IRVMR is reduce to regulation size the stock of scrap iron at the Berceni site, for which a vast program of technical and organizational measures has been established by the enterprise. Some of these are: resumption of reusable material collection by varieties, quality, and types, providing for this purpose clearly marked containers and proper personnel training; hastening the dismantling of broken machinery, equipment, and installations, so as to more rapidly recover reusable parts and subassemblies, and to prepare other materials by varieties, according to contractual obligations; receiving only sorted metals from socialist units, and sorting consistently and immediately the reusable materials collected from the population.

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ECONOMY

ROMANIA

# MINISTRY STATEMENT ON INCREASING ENERGY PRODUCTION

Bucharest REVISTA ECONOMICA in Romanian No 42, 18 Oct 85 p 13

[Article by Vladimir Constantinescu, deputy minister of electric power]

[Text] Given the need to bring into the economy and fully utilize all reserves in order to increase electric power production, as a determining condition for the pursuit of all activities, REVISTA ECONOMICA organized a discussion on the topic "Ways and Means for Increasing the Production of Electric Power," attended by specialists from various branches of the national economy. The discussion has led to the formulation of ideas and proposals whose study could provide useful factors toward the adoption of measures designed to contribute to the development of Romania's electric power production. Regarding the problems considered during the discussion, the minister of electric power sent us the following response:

We welcome the discussion on the topic "Ways and Means for Increasing the Production of Electric Power," organized by REVISTA ECONOMICA, which was attended by specialists from various branches of the national economy, thus showing that electric power and its problems are of constant interest to all. As concluded by the discussion, the supply of electric power and heat for the national economy and household consumption, can be achieved only through the joint effort of workers in the power production field and specialists in the economy, including the support of the population.

The leadership of the Ministry of Electric Power is concerned with the continually growing electric power and heat production, as the fuel structure is moving through a rapid transition from hydrocarbons to solid fuels, hydroelectricity, and nuclear power, thus making maximum use of the country's energy resources. The building of new power plants--one of the major ways to develop the country's power base--such as lignite thermal power plants (CET) (CET Craiova II, CET Suceava, CET Iasi, CET Brasov, CET Oradea II, CET Timisoara, CET Arad), hydroelectric plants (Portile de Fier II, Mare-Retezat River, Lower Olt, Racaciuni pe Siret), a nuclear power plant (Unit 1 at Cernavoda)--to mention only the largest ones, requires not only a special effort on the part of electric power specialists, but also the sustained effort of workers in the machine building, electrical and electronic, metallurgical, chemical, construction materials, and other industries.

Another major concern, which can be served through a close collaboration between specialists in the power production field and those in the machine building industry, is the constructive and functional improvement of Romania's high power stations (50 and 330 MW), using low grade lignite and bituminous coal. Joint programs have been drawn to modernize, increase reliability, and achieve planned parameters, at the Turceni, Rovinari, Anina, Borzesti II, and Doicesti thermoelectric plants, so as to increase the availability of these plants at 65-60 percent of their installed power. Special attention is being devoted to the fabrication of a boiler for 420 tons of steam per hour, 35-40 of which will then be produced and installed at electric power plants in all the country's industrial zones.

The accelerated program for microhydroelectric plant installation--another major objective for this period--is being implemented by including the installation of about 600 MW of power during the 1986-1990 five-year plan. Also accelerated at the same time, is the program to recover reusable energy resources and use new sources of energy, such as geothermal, solar, wind, and biogas, which will represent 14.5 million tons of conventional fuel by 1990.

Practical means for supplying the electric and thermal power needed for domestic consumption during the upcoming period, include the consideration of new solutions, such as those considered by the specialists attending the discussion. Major among them are: modernize and expand existing capabilities; develop thermofication and electrification associated with new sources of energy; locate seasonal users of thermal power in the vicinity of thermal electric plants; apply new design principles to the construction of electric networks to systematize them and reduce losses; apply new, high productivity technologies, and increase prefabrication in the construction and installation of power plants, so as to increase labor productivity and reduce execution times; reorganize maintenance, inspection, and repair activities involved in the production of electric power within the planned structure.

It can thus be said that a major concern of the Ministry of Electric Power and its subsidiary units is the implementation of some of the ideas formulated during the discussion organized by REVISTA ECONOMICA. Others, still at their beginnings, will be pursued with studies, research, and experiments during the upcoming period. They are: obtain a more rigorous inventory of reusable energy resources and determine new, efficient solutions for their utilization; and more decisively promote the utilization of new sources of energy (wind, solar, geothermal, biogas). We are also at the planning stage for the construction of pumped hydroelectric plants, and we will conduct further research to find efficient ways to store thermal energy.

Also to be emphasized is the idea advanced by many participants in the discussion, namely, that energy savings is one of the large resources for assuring energy at present and in the upcoming period. This can be obtained on one hand through the rational utilization and elimination of any waste of energy by all categories of consumers, and on the other hand, by increasing the power utilization coefficient. Modernizing manufacturing technologies for products, and improving production structures through energy intensive analysis for each product, must therefore become a major task for production technologies and designers throughout the economy.

We thank the REVISTA ECONOMICA editors for their interest in showing possibilities to bringing available energy reserves into the production process, and to more rapidly increase the production of electric and thermal power, so as to satisfy fully, from domestic resources, the country's energy demand."

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ECONOMY

ROMANIA

## ACTIVITY OF WOOD INDUSTRY EXPORT UNIT REVIEWED

Bucharest ERA SOCIALISTA in Romanian No 22, 25 Nov 85 pp 43-44

[Article by Laura Malcea]

[Text] Our party and state leadership is giving special attention to superior utilization of the natural wealth Romania has available. The directives of the 13th party congress for Romania's social-economic development in the 1986-1990 five-year plan and up to the year 2000 provide that the wood-processing industry mainly is to develop due to better utilization of timber. These provisions are to be carried out by increasing the percentage of furniture production together with reducing the percentage of products with a low degree of utilization (cellulose wood, converted timber and chipboard).

The great economic importance in the continuing development of the wood industry comes both from the fact that this sector satisfies many and varied needs of the national economy and population as well as from the fact that the products processed from wood are being more and more requested for export, being an important source of hard currency for Romania. For example, furniture represents more than 40 percent of total exports of the Ministry of Wood Industry and Building Materials, with growth trends.

By 1990, according to forecasts, this will reach around 85 percent. The rise in percentage of furniture exports has become possible as a result of the action of many factors. Among them are placing into operation new production capacities, increasing labor productivity as well as reutilizing recoverable waste in a higher and higher proportion.

Together with satisfying the domestic consumption needs, furniture exports have seen continuing growth from one year to the next. It is significant that Romania today is among the top nine furniture-exporting countries, with its share of world exports of this product being nearly 4 percent.

Furniture exports, produced in the wood-processing combines belonging to the Ministry of Wood Industry and Building Materials, are carried out through Technoforestexport, the foreign trade enterprise, which was established in 1966. The purpose for creating this prestigious enterprise was to increase the exports of products with a high degree of processing, particularly furniture, as well as the development of exports of other products finished from wood, such as scaffolding, musical instruments, sports articles, prefabricated houses.

In the years since it was established, Tehnoforestexport has regularly broadened its ties with more and more firms in countries all over the world. The enterprise currently maintains commercial relations with more than 300 firms in 38 countries.

Special importance is being given to the development of exports in the socialist countries. For example, the exports of furniture to the USSR represent around 80 percent of total exports to these countries. At the same time furniture exports to the other socialist countries are developing—to the GDR, Socialist Republic of Czechoslovakia, People's Republic of Poland, People's Republic of Hungary, People's Republic of Mongolia, CPR, and People's Republic of Bulgaria.

In general, exports to the socialist countries consist of complete sets of furniture: bedrooms, dining rooms, living rooms, kitchens as well as furniture pieces such as bookcases, dressers, desks and chairs.

The constant concerns of the production units to diversify products and to provide their superior quality are a basic reason for increasing exports. For example, furniture exported to the socialist countries is built in various styles, using varied types of imported veneers as well as native ones, such as oak, sycamore maple, beech.

As a result of Romania's geographic position, Romania's furniture exports to the socialist countries mainly is oriented toward the western European countries. These countries represent around 80 percent in the enterprise's total exports.

Among the western European countries, exports to the FRG are in first place.

Due to the furniture producers' adapting to the requirements of the West German market, Romania's furniture exports to this market have recorded substantial growth from one year to another. Truly, the product of a correct and well-applied commercial policy, Romanian furniture has captured more and more advanced positions in the West German market. In a relatively short period, Romania has become the third largest furniture exporter to the West German market.

Romanian furniture is requested very much and holds important positions on the French market, also. Romanian exporters are in fifth place among the big exporters and in first place among the socialist countries exporting furniture to this market.

It should be noted that the furniture exports to Belgium, the Netherlands, Great Britain, the northern countries, Italy, Spain, and so forth, also are particularly important.

The specific nature of the furniture exports to the western European countries lies in the diversity in varieties with regard to styles and models as well as types of wood used. What is characteristic of the consumer demand in this geographic area is the large percentage of rustic furniture, built from oak.

The classic furniture style, built according to reproductions of traditional styles (Chippendale, Baroque, Louis XIV, XV and XVI and Regency) is enjoying the buyers' appreciation and is being requested more and more on the Western markets.

Although it is a considerable distance from Romania, the United States is another important commercial partner of Romania's for furniture sales. Deliveries to the United States are recording a continual increase. Currently furniture exports to the United States represent more than 10 percent of the total exports of the Tehnoforestexport enterprise to the capitalist countries.

Romanian furniture is known on all continents. Furniture is being exported to countries in Africa, Asia and Australia and Romanian products are enjoying praise from purchasers.

The development of Romanian furniture exports has occurred under conditions of systematic improvement in economic efficiency.

In accordance with the guidelines established by the party and state leadership, the furniture producers and exporters are giving particular importance to the specialization of production in relationship to the sales markets, with the purpose of providing greater labor productivity, improving the quality of products and ensuring steady deliveries.

Rapid adaptation to demands of the market, the delivery of faultless furniture in all regards (workmanship, finish, packaging) are decisive conditions for obtaining new positions and obtaining superior economic advantage.

The increase in degree of utilization of wood through furniture exports has been obtained by changing its structure. Whereas in the 1965-1975 period the simple products, which included lower manual labor, represented more than 60 percent of exports to the western countries, in the 1975-1985 period the percentage of these products fell to around 10 percent, in favor of the rise in share of products incorporating a high volume of manual labor.

One of the basic concerns of the Tehnoforestexport foreign trade enterprise is the active participation in actions to promote exports. The presence of Romanian furniture has become a tradition in such big international shows such as the fairs in Cologne, Paris, Milan, Lyon. During these fairs and international exhibits, market searches are made, new partners are contacted and new products are launched.

The building of furniture which can be completely disassembled is in the permanent attention of Romanian producers and exporters. The increase in percentage of this furniture represents a number of economic advantages due to the substantial reduction in transportation and packaging costs.

The execution of furniture which can be completely disassembled is a primary requirement in extending exports under conditions of high economic efficiency to the far geographic zones.

With a view to developing Romanian furniture exports, a program of complex measures was adopted recently for the improvement and modernization of manufacturing techniques used, improvement in commercialization methods by coming more and more close to the final consumers, establishing joint companies with partners in various countries and creating warehouses, particularly in the duty-free zones.

The entire collective of the Tehnoforestexport foreign trade enterprise, with the contribution of all furniture producers, is firmly decided to take action to consolidate the prestige obtained on the foreign markets, to achieve new positions in international commercial exchanges, exporting furniture with a high degree of processing and with high parameters of quality. Toward this end, the enterprise's workers are concerned with continually raising the level of their vocational and political training, being convinced that through their activity they are contributing to superior utilization of a great native natural wealth such as wood on the foreign markets, thus increasing Romania's receipts of hard currency.

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MILITARY

GERMAN DEMOCRATIC REPUBLIC

# SED LEADERS SHOW UNITY AT HOFFMANN FUNERAL

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 7 Dec 85 p 3

[Article by Peter Jochen Winters: "Three German Communist Leaders Demonstrate Unity at Hoffmann's Bier"]

[Text] Berlin, 6 Dec 85. Already on Thursday evening the flags on the public buildings in East Berlin had been lowered to half mast. A day of national mourning had been ordered for Friday. However, the "national act of mourning" did not take place in a state building but in the building of the central committee of the SED [party]. In the large conference room of the former Reichsbank building, the end wall has been adorned with a large black-edged picture of the deceased. [There are] many plants on the podium, and in front of it an honor guard of the National People's Army [East German Army (EGA)] with unit colors--three young officers of the ground forces, the navy and the air force in dress uniform and with a marksmanship cord over the shoulder. At the sides of the podium are a large red flag and the flag of the GDR.

At the outset of the funeral ceremony, members of the family, widow Gisela, four sons and a daughter, take their seats in the front row. Until now they had never made a public appearance. The private life of high party functionaries is still a taboo in the GDR. On the other side of the center aisle are Erich Honecker with his wife Margot, Stoph, Sindermann, Krenz, the new defense minister Kessler, who will probably become a politburo member shortly, and between the politburo members the chairman of the West German Communist Party, Mies, and the chairman of the Socialist Unity Party of West Berlin (SEW), Schmitt. For the first time, the three German communist leaders are seen together at an event in the GDR. A remarkable demonstration of unity, but nevertheless not the first of its kind: In May, Honecker, Mies and Schmitt were in Moscow together when the cornerstone was laid for a Thaelmann monument. Afterwards, they were separately received by Gorbachev. It was at this "German day" in Moscow, incidentally, that the only "bilateral" meeting to date between Honecker and Gorbachev took place. And now, at the bier of the politburo member and multiple "Hero of the GDR," again this all-German solidarity of the three German communist leaders.

Present are the defense ministers of the Warsaw Pact states and the supreme commander, Soviet Marshal Kulikov, who just finished their rotational

conference in East Berlin. Noteworthy in this connection: aside from the central committee of the communist party of the USSR and the Group of Soviet Forces in Germany [GSFG], official condolences on the death of Hoffmann were also offered by Marshal of the Soviet Union Orgakov as well as the commander, chief of the political administration, and the chief of staff of the "Central Group of Soviet Forces." Orgakov has for some time been the center of attention by political observers; many see in him the next defense minister of the Soviet Union, and in the West there is speculation as to the position that he currently holds.

The musical portion of the state funeral service is not provided by a military orchestra but by the East Berlin state orchestra. It plays first the GDR anthem and the "1848 Overture" by Otmar Gerster, which contains variations on themes of the "International." Once the symphony orchestra has finished playing and the honor guard has been relieved, Egon Krenz, secretary of the SED central committee and responsible for security matters, speaks words of remembrance for the deceased army general, who was the defense minister of the GDR for more than a quarter century. He eulogizes Hoffmann not only as a reliable functionary of the Marxist-Leninist party and the socialist state, he also calls him a "soldier of peace." Krenz recalls the congratulations of the party and state leadership of the GDR on the occasion of Hoffmann's 75th birthday on Thursday of last week. At that time, "Comrade Heinz" said that he had spent the 12 nicest and happiest years of his life-- Hoffmann became a member of the politburo in 1973--on the party leadership team under the time-tested command of Honecker. Honecker and Hoffmann, incidentally--as both reported in their memoirs--, had become acquainted in 1933 in Mannheim as young communist youth functionaries. They met again in Berlin in July 1945.

Egon Krenz describes Hoffmann's life, mentions the fact that the party sent the locksmith from Mannheim and illegally active functionary to Moscow in 1935 to "study," that "the land of Lenin had become his second homeland." (Hoffmann's first wife was Russian.) He praises Hoffmann's voluntary engagement in the Spanish civil war, mentions his serious injury. In 1941--by now back in the Soviet Union--he unquestioningly fought as an officer of the Red Army against the German fascists. After the war he built up the National People's Army of the GDR, "his" army.

Krenz speaks for a little under 30 minutes. Once again he emphasizes Hoffmann's "hearty, unforced manner in dealing with his soldiers and the workers" and then assures "Comrade Gisela": "We will miss him, our Comrade Heinz Hoffmann, but he will never be forgotten." One last farewell from the "dear unforgotten friend and fellow warrior," and then the state funeral ceremony is over. The honor guard is relieved one last time. Then it is the state orchestra's turn again. Beethoven's "Egmont Overture" is played. In closing, all rise to the strains of the "International." A markedly simple ceremony comes to a close. The military display, as well, is kept within bounds. Other German leaderships have buried their deceased military men with more pomp.

Following the funeral ceremony in the building of the central committee on Marx-Engels Platz [square], the last service takes place at the socialist memorial in Berlin-Friedrichsfelde. In the presence of all the mourners, the urn with the ashes of the defense minister is interred with military honors.

MILITARY

GERMAN DEMOCRATIC REPUBLIC

# NEW FIGHTER-BOMBER IN AIR FORCE

Frankfurt/Main SOLDAT UND TECHNIK in German No 12, Dec 85 p 786

[Article by 'ds': "FITTER K Fighter-Bomber in the East German Air/Air Defense Force--Modernization of Air Attack Units in East Germany"]

[Text] FITTER K, currently the latest version of the FITTER fighter-bomber series from Sukhoi, along with other East German Air/Air Defense Force [EGAF/AD] aircraft of Soviet and Czechoslovakian manufacture, was displayed on the ground and in the air during a troop review in August of this year. The appearance of this aircraft in the East German Army--deliveries allegedly began in 1981 already--is indicative of the continuing modernization and strengthening of air attack forces in East Germany.

Derived from the Su-22BM (M = modified) FITTER H, FITTER K is likewise equipped with the afterburner turbojet engine AL-21F of A. Lyulka, but differs externally from it by having a square-shaped supplementary air intake in the dorsal bulge in the ascending vertical fin. It is assumed that a parallel series was built having the higher-output Tumansky engine R-29B. This version can be recognized by the somewhat larger fuselage cross-section in the area of the engine. The bomb and missile armament can be distributed among eight weapons stations [pylons], three each beneath the rigid wing center sections and two beneath the fuselage. The relatively short, slewable outer wing sections are not loadable in any of the FITTER swing-wing versions.



Su-22(?)/FITTER K of the EGAF/AD

The inboard and outboard pylons visible on the photograph underneath the left wing are fitted with one each multirocket launch pod UB-32/57 (32 air-to-ground rockets, caliber 57mm). The smaller missile pylon in the center carries the AA-8/APHID air-to-air missile for self-defense.

The two stations located side by side underneath the fuselage, typical of all Sukhoi models, are likewise equipped with one each UB-32/57 pod. Taking into account the identical armament of the right wing, 192 unguided air-to-ground rockets and two air-to-air missiles can be fired. The two pylons under the fuselage can also be fitted with one each 800 liter supplementary fuel tank, and those under the wings with free-fall bombs. A total payload of up to 3500 kg on all eight stations is possible.

The aircraft's weapons equipment includes two 30mm NR-30 automatic [machine] cannons located in each of the wing roots close to the fuselage, each with 70 rounds of ammunition. One of the cannons can be missing, especially in the two-seater versions.

Other aircraft participating in the ground, flight and aerial combat demonstrations of the EGAF/AD included the following:

- Light multipurpose helicopter Mi-2/HOPLITE as an airborne command post and liaison helicopter;

- Transport helicopter Mi-8/HIP, carrying motorized rifle troops;

- Assault helicopter [gunship] Mi-24/HIND, rapid fitting of pylons with guided missiles and unguided rockets. The inclusion of four "scouts" in this gunship, to be dropped off behind the enemy, was highlighted in the GDR press;

- Multipurpose transport Let L-40 UVP, carrying wounded personnel;

- Medium-range transport An-26/CURL, carrying 30 parachutists who were dropped, as well as a cargo drop from an altitude of 5 m;

- School and combat trainer Let L-39 Albatros, fighter aircraft MiG-21/FISHBED and fighter aircraft MiG-23/FLOGGER B and G with flight demonstrations taken from the training program.

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4 March 1986

MILITARY

GERMAN DEMOCRATIC REPUBLIC

## PROBLEMS IN CARE OF MILITARY EQUIPMENT ADMITTED

East Berlin MILITAERTECHNIK in German No 6 1985 (signed to press 9 Sep 85) pp 281-282

[Article by Col H. Mehlberg: "Responsible Attitude Toward Military Equipment--A Prerequisite for Increasing Combat Effectiveness and Combat Readiness"]

[Text] The current developmental status of our military equipment puts much higher demands than before on the behavior of the members of the army, on their awareness, their intellect and state of training, their work discipline, and also on their emotional stability and physical preparedness. The result is also higher standards for the training of the members of the army so that they will have a responsible attitude toward military equipment.

We can reach our goal of a greater combat effectiveness and combat readiness when military equipment is perfectly mastered and is maintained and serviced in accordance with regulations. But that depends decisively upon the attitude of the members of the army. It is a command variable that is influenced by many factors and that can be measured by the results. The deputy commanders for equipment and armament should constantly keep this in mind in the analysis of the results of utilization.

A responsible attitude toward military equipment is expressed in the dependability of each individual and the team in the observance of the parameters and regulations established for the utilization of equipment as well as in carrying out maintenance and repair work in accordance with regulations. But it can also be seen in the economical use of physical resources made available for utilization and includes such factors as economical driving techniques, the achievement of utilization performance parameters, and the prevention of breakdowns and accidents.

Such attitudes and positions do not develop by themselves. Despite higher training levels and the increased social maturity of soldiers, it is necessary to develop them patiently through ideological work, education and training. Neither can one assume that that applies only to young soldiers. On the contrary, the results of utilization show that it is also necessary to make the superiors at all levels constantly aware of their responsibility relative to their military equipment.

## 1. Combining Military Training With Convincing Political Work

In the training of soldiers, we assume that their responsible behavior toward equipment depends to a large extent upon their political attitude and their political preparedness and morale. We therefore see a fundamental precondition to be convincing political work that helps one to understand the meaning of being a soldier in socialism and to strengthen the conviction that the defense of socialism is justified.

It is thereby clear that the development of an attitude toward military equipment is a complex task whose resolution cannot be assigned to the deputy commanders for equipment and armament alone. It puts a high demand on command activity that can be performed only collectively by the commanders of all levels, the political workers, the party and FDJ organizations, and all other superiors. At times, it is by no means easy to be convincing in having all those involved understand the mutuality of this task and to develop a common awareness of responsibility for this.

It is necessary above all to carry on political work continuously for the further clarification and formation of the man-equipment relationship. Any campaign that is introduced in practice with the appearance of negative utilization results or frequent occurrences and failures with and on military equipment will be largely ineffective from the outset if it does not follow up on preceding continuous work.

It has been our experience that a qualitative leap to a responsible attitude toward equipment did not occur until we politically evaluated and showed all of the negative phenomena in the utilization, maintenance and repair of equipment that prevent us from fulfilling the military class mission.

Although we are still far from having reached the status for which we are striving, more thought is now going into what sort of specific political work must be done to ensure the success of the educational process.

We put the following questions at the core of our considerations:

--What are the attitudes and positions with which the soldiers approach the resolution of all of the tasks connected with military equipment and how can we identify and influence them?

--How can we best reveal the ideological problems of the man-equipment relationship and convincingly explain them most simply in daily instruction and training?

--How, in the daily process of training and utilization, can we establish the conditions that meet the higher mental and physical requirements placed upon us by the use of military equipment in combat?

We have established the basis for further progress in that we have, in our opinion, been successful in shifting these questions from the realm of

theoretical considerations on the man-equipment relationship to tasks for political and military education and training. Experience shows that that is a complicated process than can lead to success only in interaction with purposeful military training.

## 2. Education of Superiors is the Key to the Education of All Soldiers

The developmental status of military equipment as well as the high degree of specialization also affect the relationships between superiors and subordinates. Officers, warrant officers and career noncommissioned officers are increasingly being integrated into garrisons, crews and maintenance units. The operation, maintenance and repair of military equipment require that they have both high technical military skills and well-defined capabilities for the training of the soldiers subordinate to them.

There are difficulties especially for young and still inexperienced superiors in the formation of an exact superior-subordinate relationship. They must first learn to teach their subordinates in joint work with and on equipment to take a responsible attitude.

The charisma of the superior, his exemplariness in the consistent implementation of all regulations established for military equipment, and especially his attitude toward all questions involving combat equipment have a substantial influence on the attitude of the soldiers.

It is important that superiors, with their firm political standpoints and their experiences in the service and in life, provide effective support to the young officers and noncommissioned officers in the training of soldiers. We are striving to implement this requirement in daily work.

But the superior's sense of responsibility toward military equipment does not develop by itself. Checks of the utilization of equipment show that the technical military knowledge and skills gained are not always put into practice. We have made some progress here as well since we began to evaluate periodically and thoroughly how each superior resolves the tasks relating to his military equipment. For this, we especially make use of the following measures:

- periodic evaluations of the utilization of military equipment,

- quality controls of military equipment after preparation for a utilization period and prior to permission for operational firing or other measures in combat training,

- surprise checks or systematic partial and overall checks,

- control inspections, inspections of military equipment or systematic checks of infantry armament.

The more specifically we evaluate the results and elaborate the status of each individual result, the more we contribute to the deepening of the sense

of responsibility of the superiors. This educational work must be part of the command activity of the commanders of all levels and must always be seen and carried out in connection with the tasks of combat readiness. Here as well, we had to acknowledge that short-term successes through campaignlike work do not last long.

### 3. Utilizing Socialist Competition

Socialist competition is suited above all to the teaching of a responsible attitude toward equipment. A focal point in our work is the goal-oriented management of the initiatives and activities established in the directive for the utilization of military equipment. We still have reserves here and these tasks can be resolved only when deputy commanders for equipment and armament at all levels, motor sergeants, tank mechanics and others apply all of their energies for this purpose. The management of these initiatives was delegated to the technical services and they are part of the periodic evaluation of the utilization of equipment at all levels. The soldiers are striving for the best performance in the following initiatives:

--"Vehicle/Armament of Outstanding Quality,"

--"I Drive the Most Economical Kilometer,"

--"Best Driver/Driver Instructor,"

--"Best Maintenance and Repair Group."

For this purpose, we worked out the applicable criteria for our conditions. The following criteria considered by the commander in distinguishing the best units are most effective in training:

--maintenance status of the infantry armament in the training half year (scheduled and surprise checks by the command entity),

--breakdowns or failure of military equipment caused by negligence,

--traffic accidents with service or private motor vehicles caused by negligence,

--mark achieved in the quality control of military equipment after preparation for a utilization period,

--results of the preventive maintenance of military equipment in the training half year.

The assessment is made monthly by the deputy commanders for equipment and armament or the company commanders of the maintenance and repair installations. This direct evaluation with the drivers/driver instructors and specialists has a great educational effect.

In addition, we are conducting special competition between the units and technical specialities. It thereby involves the following criteria:

- compliance with the order of parking based upon the military regulations in the training half year,

- results of the checks of the state of equipment in the training half year,

- quality and implementation of the course of maintenance,

- number and severity of special occurrences with equipment caused by negligence,

- quality of the planning and verification of utilization.

The fact that the commander gives a differentiated evaluation of both this special competition at the end of the training half year and the quality controls of military equipment after preparation for the utilization period contributes substantially to the training of the subordinate officers.

#### 4. Technical Discipline Puts High Demands on the Soldiers

Important preconditions for ensuring the continuous operational readiness of military equipment are the exact observance of utilization regulations and all maintenance intervals, constant adherence to adjustment parameters, preparation of equipment for operation in accordance with regulations, and the application and observance of utilization requirements in the course of operation. That requires a high degree of military discipline.

In Soviet literature, one has for years been encountering the term "technical discipline" for this. It is part of military discipline and includes the conscious strict observance of all of the provisions of the utilization regulations. We view the training of a high technical discipline as a primary task. It puts high demands on the soldiers and heightens their sense of responsibility for equipment.

The results of the utilization of military equipment indicate how serious the effects of the slightest violations of technical discipline can often be and how simple it would have been to prevent such occurrences. In our educational work, therefore, we proceed from the following basic questions:

- Everything that trainees experience in their daily duty in dealing with military equipment must correspond precisely to our service regulations and must set an example for their remaining period of service.

- The superiors and instructors must set an example in the observance of technical discipline so that the soldiers become accustomed to these forms of behavior.

--The meaning of the military provisions on the utilization of military equipment must be explained in their possible practical effects. Errors in utilization are to be evaluated continually.

--Intentional violations of provisions on the utilization of military equipment are punished through disciplinary action and the extent of possible secondary damage is explained.

It is our experience that the conscious attitude of a soldier toward military equipment is formed most effectively in the first weeks and months of his period of service. Hence follows the special responsibility both of the training installations of the National People's Army as well as of the units in which the soldiers are trained in their official function.

We too have problems in the implementation of our conceptions and training goals. But these problems are caused mainly by the superiors and instructors and less by the young soldiers being trained. In our understanding, therefore, the utilization of military equipment will be organized and carried out in an exemplary manner only when we are successful in continually including all superiors in this process and in demanding that they show high technical discipline.

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MILITARY

POLAND

FORTIETH ANNIVERSARY OF NAVY COMMEMORATED

Speech by Commander

Gdynia PREZEGLAD MORSKI in Polish No 10, Oct 85, pp 4-15

[Speech delivered by the Commander of the Navy, Admiral Ludwik Janczyszyn, at the commemorative observances of the 40th anniversary of Poland's Navy]

[Text] Comrades and citizens, honorable guests, veterans and reservists, comrades in arms!

It will soon be 40 years since the order by the commander-in-chief of the Polish Army established the Navy as an independent branch of the Polish People's Republic Armed Forces. The creation of the Navy, less than 2 months after the victorious conclusion of the war with the Nazi Third Reich, had deep political meaning and grave military significance. Thanks to the farsighted political and military strategy of Poland's Left camp, with the Polish People's Republic at the forefront, and the Berlin victory in May 1945, Poland based itself on the more-than-500-kilometer Baltic Coast, from the Vistula Sandbar to the Szczecin territories of the Piast dynasty. That, too, is how the sea boundary of the newly formed socialist Polish state was finally settled and the decisions of the historical July Manifesto were implemented.

In opening today's celebration, dedicated to honoring the 40th anniversary of the Navy, I am proud on behalf of its command, cadre, seamen, military employees and myself, to welcome those who came to honor it with us, the representatives of the highest political, state and military authorities: PZPR Central Committee Politburo member Comrade Stanislaw Kalkus; Minister and Head of the Office of Maritime Economy Comrade Jerzy Korzonek; and Chief of the Main Political Administration, Deputy Minister of National Defense, Comrade General of Arms Jozef Baryla.

I sincerely welcome the secretaries of the PZPR provincial committees, the chairmen of the provincial people's councils, the province governors, the chairmen of the PRON (Patriotic Movement for National Rebirth) provincial councils, and the chiefs of the provincial internal affairs offices of the Gdansk, Szczecin, Koszalin, Slupsk and Elblag territories.

I sincerely welcome the generals and officers who are representing the central institutions of the Ministry of National Defense, branches of the armed forces and the military districts.

I warmly welcome the combatants from all of the fields of battles, the seas and the Atlantic Ocean, the veterans and reservists of the Navy, the representatives of the Union of Fighters for Freedom and Democracy, the Union of Former Professional Soldiers, the National Defense League and the Maritime League, the residents of the city of Gdynia, and the representatives of the workplaces, colleges and schools of the Tri-Cities, who collaborate with the Navy.

In the name of all of those present I am privileged to welcome our close friends: the commander of the USSR Baltic Fleet, which has been twice decorated with the Order of the Red Flag, Comrade Admiral Konstantin Walentynowicz Makarov; member of the Military Council fleet, Comrade Vice-Admiral Ivan Fiodorowicz Alikov; deputy commander of the GDR People's Navy for behind-the-lines matters, Comrade Rear Admiral Hans Hoffman; and head of the GDR LM political board, Rear Admiral Han Hes.

I welcome the consuls general in Gdansk: USSR, Minister Plenipotentiary Comrade Ivan Tkaczenko, and GDR, Comrade Gerhard Kaiser.

I wish also to welcome the representatives of the cadre, seamen, military employees, military families, and the Trade Union of Military Employees of our branch of the armed forces, and all of those assembled in this hall who came here to commemorate the 40th anniversary of Poland's Navy with us.

Among the first to reach the liberated regions of the Coast were the soldiers of the First Separate Marine Reserve Battalion. Although they were not able to take part in a direct battle with the hated fascist foe, despite their fierce willingness and determination, nevertheless they played a significant part in the pioneering work of restoring Polish life in almost totally destroyed Gdansk and badly damaged Gdynia.

On the 40th anniversary of the Navy we express our deep respect and gratitude to that great champion of maritime matters in general and the Navy in particular, Marshall of Poland Michal Rola-Zymierski, who was chiefly responsible for the establishment, on a liberated scrap of land in the Lublin territories way back in October 1944, of the nucleus of a Navy, and this was at a time when the sea was still far away, and not everyone could believe that we would soon reach it. With great respect we remember the first battalion commander, Capt Karol Kopiec. We also mention with respect the noble cadre soldiers of this unit, whom we knew and whose representatives are with us today. Your pioneering labor, dear comrades, in creating the beginnings of the defenses of the Polish People's Republic on its northern, open border, did not go for naught. I direct these words to you: Captains Henryk Malinowski, Robert Mietelic, Eugeniusz Jereczek, Wladyslaw Trzcinski, Marian Iwankiewicz, Janusz Kunde, and Leon Doroszewski; Ensign Roman Radziejewski; and also your former subordinates. We wish you further productive activity for the country and for the Coast, with which you have cast your fate. We wish you long years of good health and all possible good fortune in your personal life.

We address words of deep respect to the heroic defenders of Westerplatte, Hel and Gdynia, who in the tragic days of September 1939 were subjected to the most tragic and most severe test for a soldier--they had to yield to the

enemy's brute force, but never did they doubt our return to the Baltic lands stolen from Poland.

We bow our heads and our colors before all fighters for a free and independent Fatherland, for its favorable geopolitical postwar form. In paying deep homage today to the fallen, who remained faithful to the slogan "for your freedom and ours" to the end of their lives, we send greetings to all former soldiers who in various military units, on land, sea and air, extolled our national red and white colors.

Forever in our grateful memory will remain the first commanders and educators, the creators of the people's Navy. We will always remember those who in leaving for their eternal vigil left us a great legacy. Permit me to name only those of senior rank: Vice Admiral Zdzislaw Studzinski; Rear Admirals Wlodzimierz Steyer, Jozef Sobiesiak, Gereon Grzenia-Romanowski, Wladyslaw Szczerkowski, and Witold Gliniski; General Tadeusz Dziekan; Captains: Boleslaw Romanowski, Stanislaw Leszczynski, Adam Rychla, Mieczyslaw Miernik, Stanislaw Lewandowski, Czeslaw Witczak, Maciej Morys, Wienczyslaw Piotrowski, Henryk Wasowicz, Jozef Porydzaj, Tadeusz Orzecki, Kazimierz Laskarzewski, Ludwik Szmidt, Michal Ejsmontt, Ireneusz Grajewski, Zdzislaw Glowienka, and Ludwik Swinkianski; Commander Lieutenant Franciszek Dabrowski; and Commander Pilot Aleksander Majewski.

We are deeply grateful to those who for a number of years have performed responsible functions in the ranks of the Navy, making their personal contribution to the achievements which have now been ascertained. I am referring primarily to Gens of Arms Jozef Urbanowski and Czeslaw Kiszczak, Gens Div: Mieczyslaw Grudzien, Sebastian Strzalkowski and Edward Poradka; Gens Bde: Wieslaw Lasinski, Mieczyslaw Cygan, Ryszard Mielczarek, Jozef Szewczyk, Kazimierz Lipinski and Marian Wroblewski; Colonels Tadeusz Makarewicz, Jan Rapacewicz, Franciszek Piwowar; Captains Adam Kuzma, Ireneusz Krupa, Henryk Uba, Walerian Magon, Ignacy Blasiak, Zdzislaw Misztal, Stanislaw Kocyk, and many others.

We send words of gratitude and best wishes to the admirals and officers of the USSR Navy who gave us a tremendous amount of assistance in the organizing and training of our Navy, sharing their knowledge and wealth of combat experience. We wish to specifically single out Vice Admiral Wiktor Czerokow; Rear Admirals Iwan Szylingowski and Mikolaj Truchnin; Captains Mikolaj Sztankowski, Pawel Ipolitow, Wiktor Rukiewicz, Wlodzimierz Polakov, Anisim Szelest, Wiktor Mironow, Iwan Smirnow, Michail Skorochodow, and Kiryl Szyszlakow; Colonels Walenty Sidorkin, Michail Griba, Mikolaj Turkow, and many others.

We sincerely thank the officers, ensigns, noncommissioned officers and seamen who are retired or in the reserves for their contribution to the development and improvement of the Navy over its entire 40 years, and particularly Rear Admirals Henryk Pietraszkiewicz and Zygmunt Rudomin; Captains Stanislaw Kankowski, Edward Skora, Heliodor Tekiel, Jerzy Pawlowski, and Zdzislaw Smyk; Ensign Marcin Marusinski; and Chief Petty Officer Kazimierz Mierzwiak.

We sincerely greet the Navy reservists who upon leaving the ranks of our units went on to build socialism, often becoming leaders in vocational and

social work. They include Captains Jan Slusarz, Bogdan Rojcewicz and Stefan Wisla and Navy Captain Bogdan Kryspin.

I give high praise to the professional cadre and the seaman in the regular military service who are fulfilling, with integrity, their military duties in the posts assigned to them, thus faithfully executing the testament of many generations of defenders of the Polish sea. Allow me, comrades, to name Captains Jan Fursewicz, Marian Moneta, Ludwik Siwek, Stanislaw Lalak, Jan Przybylski, Boleslaw Hydzyk, Zdzislaw Frankowicz, and Waldemar Raczkowski; Chief Staff Warrant Officer Franciszek Szarek; Chief Warrant Officers Tadeusz Iwanski and Marek Mincer; Warrant Officers Slawomir Reymer and Marian Schmidt; and our best efficiency experts, Commander Lieutenant Mieczyslaw Bielawski and Navy Ensign Jan Sobkowski.

I thank our civilian employees for their dedicated labor, and for their social and vocational activeness. Among them are Reserve Captains Jozef Wegrzyn, Bronislaw Marciow, and Bronislaw Szulow; Reserve Warrant Officer Bernard Wladacz; Dr Tadeusz Struniewski, and Monika Janik. I also thank our shipyard workers for their ship construction, for their efficient and dependable repair of of ships and auxiliary sailing vessels.

The sacrifice of those who died in the battle for People's Poland and the country's socialist future, the combat effort of those who are no longer with us and those who survived, was not in vain. The Navy which was formed 40 years ago is today a reliable component of the Armed Forces of the Polish People's Republic. Its soldiers are the sons and grandsons of the cadre and seamen of those days, those battle struggles on land, sea and in air. In serving on ships, planes and in coastal units, they vigilantly guard the country's security, following the proud Navy traditions of the Polish nation.

We have--and we look upon this as an achievement of the entire 40 years--a highly qualified cadre and good Navy youth, patriotic and deeply dedicated to the ideals of socialism. We have all kinds of combat capability, by ship, air and other means of battle. We owe our combat equipment, mainly our ships, to the great help of the Soviet Union, to the efforts of our own defense industries, to the creative ideas of our scientists and engineers, and to the productive work of our shipyard workers. It is due precisely to the deliveries, licenses and technical cooperation, the good collaboration with the USSR Navy, that ships of various classes and designations have been added to our fleet. Most recently, they were ships of the newest generation, named "Gornik" [Miner] and "Hutnik" [Metalworker]. In the near future other ships will be put into service, including a modern submarine, destroyer escorts and minesweepers, to meet operational needs and requirements in the sea theater of combat operations.

Our principal ally, the Navy of the Soviet Union, has supported us in all of our many operations and ventures throughout our entire 40 years of existence. We therefore express our deep gratitude to our Soviet friends for their internationalist assistance, for their friendliness and understanding of our needs, for confirming Poland's sense of security in the Baltic Sea area.

Based as it is on Marxist-Leninist ideology, the Polish-Soviet sea alliance is unfringeable. Therefore, the ties of fellowship between the allied armies and navies, and mainly the ties between the Polish Navy and Baltic Fleet, twice-decorated with the Order of the Red Star USSR, and the GDR People's Navy, are very strong. During the 30-years' existence of the Warsaw Pact, the ties between our navies have proven themselves in many critical moments. Internationalism in navy ranks is very strongly and extensively entrenched--it has become universal and natural. We feel this most genuinely and concretely during our joint drills, during our visits of friendship and all kinds of contacts between the cadre and seamen of the three friendly fleets on the Baltic Sea: the navies of the USSR, GDR and Poland.

The 40-year history of the Navy is the constant vigilance in defense of the sea borders of the Polish People's Republic, the dedicate service to the Polish nation and its leading force, the PZPR. It is the raising of young Poles into upright citizens dedicated to socialism. On the occasion of our Navy anniversary we stand before the nation, the party and the people's government and report on what we have accomplished. In making this report, in summing up the achievements of 40 years, we stress that one of the most valuable qualities is the advancement--social and professional--of the officer cadre. Its dedication to ideology, to service, to the obtainment of ever-higher skills, has paved the way for the entire Navy. We are proud that almost 90 percent of the officers in the Navy are graduates of higher military and civilian schools. It is our hope that the future officer cadre will meet the professional, scientific, intellectual and cultural needs of the day, the requirements of the scientific-engineering revolution, and the criteria of modern operational and tactical ideas. As you know, 40 years ago we began not only with a limited sea combat potential, but above all, with a shortage of qualified officer cadre. To correct these problems, a Navy Officers School was established as early as 1946, and 10 years later, the Heroes of Westerplatte Higher Naval School was formed. The faculties of our colleges, who are performing their training and educating assignments better and better, can be proud of their many theoretical works on the art of war at sea. An entire series of innovative solutions has been developed and executed in the laboratories of the Higher Naval School. They include contactless ignition equipment in naval armament, a power supply for minesweeping armament, principles of operation and utilization of a road minesweeper, and a navigational and weapons converter. The principles for hydrographic navigation protection of combat actions, qualitative evaluation of the enemy's naval forces, and assessment of the Navy's reconnaissance forces and means have been developed. A model has been made of a device for setting dummy thermic or dipolar targets and regulations pertaining to studies of the impact resistance of ship constructions to underwater explosions have been drawn up. The Higher Naval School faculty has submitted 256 applications to the patent office, and patents have been awarded in 128 cases.

In speaking about the great social and professional progress made by our officer cadre, we should also say that standard courses of study have been introduced at the Higher Naval School by which graduates can obtain a master's degree in engineering in applicable specialties. The establishment of study courses to train future political officers and command-and-staff specialists in technical-materials supply have also proven to be very useful. All in all,

our very worthy school has educated several thousand officers and warrant officers. We are grateful to its staff and faculty for this. We also wish them further success in their scientific research, war-at-sea teaching, and expansion of their scientific-research and study-room facilities.

Aside from the cadre training taking place in the Higher Naval School, the study courses offered by the USSR Naval Academy are of the utmost importance in improving the skills of officers selected for higher service positions. Over 15 percent of the officer corps of the Polish Navy has been trained at this Academy. We express our deep gratitude to the command and the highly qualified faculty of this Soviet naval school for their extremely valuable aid in preparing command and staff cadre for the Polish Navy. It is due to this assistance that we have been able to undertake a study of a number of complex problems in a field of operations and tactics peculiar to our branch of the armed forces. This was reflected in the plans made for the future expansion of our naval forces. Simultaneously with the training of our cadre, we began to rebuild the ravages of war. Destroyed ports, wharfs, and breakwaters, devastated warehouses and technical facilities, sunken vessels, mined harbor basins, roads and water lanes--that is what we found 40 years ago when we took over the watch at the Coast restored to Poland.

The USSR Baltic Fleet have us invaluable help in those days in clearing the ports of Gdynia and Gdansk and the larger navigational lanes of mines. This made it possible for the first ships to enter Gdynia already on 14 July 1945. After 23 ships, including 9 minesweepers, were incorporated into the Navy in April 1946, we continued to clear the northern waters of the Baltic sea ourselves, and when the submarines, destroyers and minesweepers returned from their war journeys and their combat capability was restored, we began to organize the training process. The need to organize a system of coast defenses was the top priority at that time. In order to accomplish that, the number of ships was increased and the naval aviation and coast artillery units were expanded.

In the 1950's, due to a worsening of the international situation, the process of equipping the Navy with the latest-generation ships was accelerated. Gradually destroyers, submarines, and submarine chasers, purchased in the Soviet Union, were put into service, as well as base minesweepers, landing craft, torpedo cutters, and special ships and vessels made in Poland.

The economic and scientific-technical progress in our country and the increase in trained cadre made it possible to begin a process of quality transformations in our Navy early in the 1960's. The changes were based on new doctrinal assumptions and the need to convert to new combat technologies. Of the fleets of the Baltic states, our Navy, following that of the USSR Baltic Fleet, was the next which began to develop light rocket impact forces. The entry of small rocket ships and roads minesweepers into service opened up a new stage in the development of the Navy at that time.

Naval aviation took a similar path during the past 40 years. It went from fighter, attack and piston reconnaissance planes to jets and new marine helicopters.

As the Navy developed, systematic advancement also occurred in naval operational thought, as revealed by the undertaking of new, complex problems in the field of tactics and operations. Main attention was focused on developing modern principles of troop-deployment in sea battles and automation of armaments-utilization processes. Our Navy can be proud of significant achievements on this score. We now have modern computer assemblies installed on ships, in computer centers, coast units, and scientific-research centers. The Navy has designed and has in operation computer systems which encompass almost all basic forms of command and staff operations.

Our sea defenses, insofar as tactics of deployment of various forces are concerned, are assisted by the multifaceted cooperation of our allied fleets on the Baltic Sea. One of the main forms of this cooperation are the ever more frequent joint ventures, exchange of experience in tactical-operation and combat training, and the development and application of the best methods and forms of training, including the ideological and political education of individuals. These consist primarily of joint command-and-staff and special exercises, water roads training, joint leadership training of the fleet cadre, military drills and war games, conferences, mutual consultations and demonstrations, and the preparation and application of uniform cooperation documents and principles of performing combat service.

In summing up the achievements of the Navy's 40 years, the accomplishments of its troops and services cannot be ignored. Deserving of special recognition are the engineer troops, which already in June 1947 mineswept the coast from Braniew to Szczecin, an area covering 2,324 sq km, removing and destroying thousands of tons of ammunition and grenades. They made a large contribution in the building of permanent fortifications, including command posts, coast artillery batteries, and reinforced defense areas. They had a large part in rebuilding and expanding the naval harbors. At the same time, they did a lot of work for the national economy, e.g., miner's work on the construction site of the pumped-storage power station in Zarnowiec. They also did preliminary work on the construction of a second drydock at the Paris Commune Shipyard in Gdynia and the Northern Port in Gdansk. In addition, many bridges and gangways were built for various institutions in the Gdansk and Szczecin provinces.

In assessing the achievements of the Navy's 40 years of existence, its sea-rescue activities occupy a prominent position. In addition to its assigned tasks, it serves the national economy. The launching of many modern rescue ships permitted us to go out into the seas and oceans, as shown by its towing services, deep underwater work and rescue campaigns. Its work in crude oil and natural gas exploration in the Baltic Sea, in which to this day our sea rescue work is indispensable, deserves special mention.

The achievements of the Navy's Hydrographic Service, which has a wealth of tradition and was served the national economy well, should also be mentioned. Hydrographic surveys and oceanographic research form the basis for the publications of successive editions of sea maps and navigational aids, as well as many reports for the Navy and the national economy. Of exceptional importance to the national economy is the participation of the hydrographic service in the geophysical and geological research conducted on the sea by

scientific institutions and civilian enterprises. The sailings of the Navy's hydrographic ships in Spitzbergen and Antarctica were an equally valuable contribution to Polish scientific research. Furthermore, the Navy's Hydrographic Service takes an active part in the work of the International Hydrographic Organizations and collaborates productively with the hydrographic services of the socialist states, particularly the USSR and the GDR.

The chemical troops of the Navy achieved universal respect and recognition in the past 40 years. Their importance in safeguarding the chemical combat activities of military units and ships grew. Their creative findings in the field of contamination prevention, and identification and elimination of contamination, have been greatly appreciated by all of the armed forces. Apart from this, chemical detachments assisted the national economy greatly by participating in a campaign to decontaminate fishing vessels, wharfs, and production floors contaminated by mustard gas sunk by the Germans in the Baltic waters. A total of 17 such campaigns were conducted, estimated to value 6.5 million zlotys. Successful decontamination campaigns were also conducted on two ships of the Polish Ocean Lines in 1976, in which the holds and the containers were contaminated with toxic chemical substances. I will further add that the administration of one of the US ports in which these ships were docked demanded over \$300,000 to decontaminate them.

I must also give praise to the other troops and services, and especially the Navy's communication and observations troops, the health service, the food service, the automotive service, the uniform service, and the petroleum, oil and lubricants service--all of whom have many innovative, useful findings to present, which improve service and management in the overall command system and in flow of supplies of materials to vessels and ships. The increasingly higher management efficiency of the technical and supply services and other organs of the Navy Headquarters Command should also be underscored. This is promoted by the invention-innovation movement which during the 40 years of the existence of our branch of the armed forces submitted 13,103 designs, of which 10,929 were efficiency-improvement proposals, 1,640 were innovations, 385 were inventions, and 149 were utility models. A large number of these were used in the marine sector of the national economy. Every zloty spent for this activity was repaid 27-fold. I thank all of those who are creative and who have the ambition to improve our facilities and equipment, as well as the entire command, leadership and management process. The efficiency experts and the innovators, in fulfilling their role of bearers of technical progress, have served the Navy well.

The high combat readiness of our branch of the armed forces is inseparably linked to the leadership and competition movement. We have made great strides in this area, as shown by our masterful use of equipment and armament. This movement produced a number of valuable initiatives in the fight to be named the best ship or best detachment. At present, 68 percent of the Navy personnel has a specialist rating--from third to master inclusively. Tens of ship detachments and units are proud to be named "leading," and hundreds of combat teams carry the proud title, "Teams in the Service of Socialism."

Apart from the group leadership and competitiveness, the steadily rising number of individuals--seamen and noncommissioned officers in the regular service--who have been singled out for distinction and awards such as "Exemplary Seaman," "Exemplary Leader," or "Exemplary Warrant Officer," deserves special mention. The record shows that the Navy leads all of the branches of the armed forces in these awards. We are also happy with the fact that of those who hold the title "Exemplary Seaman," almost 62 percent are members and candidates for the PZPR and 45 percent are members of the Union of Socialist Polish Youth.

The sportsmen and members of the "Flota" [Fleet] Military Sports Circle (MSC) and the yachtsmen from the "Kotwica" [Anchor] Navy Yacht Club, observe the Navy's 40th anniversary along with us. The representatives of Flota were pioneers in organizing physical culture activities in units and on ships immediately after the war, thus beginning the dynamic expansion of mass sports events on the Coast. All told, during these 40 years contestants from Flota MSC won 2 Olympic medals, 9 championship medals in Europe, 58 championship medals in Allied Armies' competitions, and over 1,000 championship medals in Poland. The dignified and patriotic military attitude of the Flota contestants during sports events also deserves recognition. These achievements can be attributed to training, to ideological and educational commitment, and to well organized and utilized sports-training facilities. The construction of open and covered swimming pools with complete facilities deserves particular emphasis. In all, due to the dedicated effort of the cadre and seamen, 6 swimming pools were constructed, of which 4 are under cover, and 166 physical-fitness centers, rifle-ranges, and fields for team sports.

In addition to Flota MSC, the activities of Kotwica Yacht Club were greatly expanded. The achievements of the Kotwica yachtsmen are excellent. They received 18 championship awards and 22 co-championship awards for Poland in various regattas; they obtained permanent possession of the GDR Navy commander's trophy and the king of Sweden's trophy. They participated in two-man transatlantic regattas and international competitions. They took second place in the "76-Sail Operation." I thank them for this effort in showing the Polish colors on the seas and oceans of the world. I also sincerely thank the activists and contestants of Flota for their sports wins thus far, for worthily representing the Navy here and abroad.

As the retrospective analysis of the Navy's 40 years of achievements has shown, we have many people of action in our ranks--more and more all the time--rising above the average, both among the officer groups as well as among the warrant officers, noncommissioned officers and seamen. These are peacetime heroes, soldiers performing exemplary service, dedicated to the struggle for the good name of our branch of the armed forces and thus the Polish People's Army. This is primarily the result of the educational activities conducted by the commanders, the party organizations and echelons, and the youth and social aktiv. All of our educational work in the 40 years of the Navy was conducted in the name of love for the socialist Fatherland and the infinite loyalty to the Polish red-and-white colors, in the name of friendship and comradeship in arms with our allied armies and navies, based on Marxist-Leninist ideology. The party's program, developed at the PZPR Ninth

Extraordinary Congress, is dear to us. We know that the people's government is counting on the participation of the military in executing the hard tasks connected with bringing the country out of its economic difficulties and reinforcing social stability.

The Navy considers it a matter of honor to serve in the defense of Poland's sea border, to safeguard the country's security, and to always be ready to defend socialism. The past years have proved that we have performed these duties well. The personnel in our branch of the armed forces will do everything to even further improve the combat readiness of units and ships, and to reinforce ideological cohesiveness through honest and dedicated work.

The party organization, which functions strongly and flexibly in the Navy, comprises 87 percent of the officers. Its ranks are steadily growing. This year alone, i.e., in just a few months, over 200 seamen were accepted as candidates. The party's activities are closely connected with the shaping of party member's ideological stances, with strengthening the combat readiness of ships and units, with the efficient functioning of staffs and commands. We note that the scope of influence exerted by party organizations on the work of the Union of Polish Socialist Youth has expanded.

In 40 years of educating fine citizens of the People's state, capable of effectively defending the country and its seas, the Navy has also made an important contribution to the safeguarding of peace in the world's hot spots. I am referring here to the participation of our cadres in peace missions in Korea, Laos, Cambodia, Vietnam and the Near East. Our Navy representatives received high grades for their work, professional military skills, ideological and moral attitudes, and exemplary service in the particular peace missions. This was shown by the many certificates of award and letters of commendation presented to them. Almost 50 officers were decorated with UN "In the Service of Peace" medals.

The Navy's participation in the struggle with the counterrevolution on the Coast and the maintenance of public order is a separate chapter of our responsible service for the country and the defense of socialism. We can report that, like good citizens, in accordance with our patriotic and internationalistic duty, we performed our martial-war duties well.

We observe our Navy holiday with an action that has been going on for many months in our units and navy garrisons. Through our work to improve the appearance of our barracks and other housing, our efforts to save raw and other materials, to obtain higher specialty ratings and "Exemplary Seaman" awards, our donations of blood, and our transference of funds saved to the Polish Mother Health Center--our cadre and seamen are multiplying our national assets.

We observe our anniversary with a sense of having performed our duties to the nation, the party and the people's government, satisfactorily.

On the occasion of the 40th anniversary of the Navy, I want to sincerely thank all of those whose honest military service and dedicated work contributed to our joint achievements. I also thank them for what they are doing this year

and for what they have done in the past. On behalf of the cadre, seamen and civilian employees of the Navy, I express my highest esteem and respect to those who took part in the war against fascism and who were victorious on all fronts.

I send best wishes also to the Navy reservists, whose contribution to our overall achievements is significant and lasting.

I address words of the greatest respect also to our comrades in arms in the land and air forces of the Polish Armed Forces.

I send warm greetings to our sincere friends, the cadre and seamen of the twice-decorated with the Order of the Red Star USSR Baltic Fleet and the GDR People's Navy.

I send sincere best wishes to the working people of the Coast--the shipyard workers, the merchant mariners, the fishermen, the workers in the maritime economy, and also the activists and members of the sociopolitical organizations and the residents of the coastal areas, to whom we are bound by close ties.

Navy members and employees, I congratulate you for the good results you have achieved in your work and your service and wish you further success in accomplishing future assignments for the good of the Polish People's Republic. I also wish you and your loved ones the best of health and all possible good fortune in your personal life. Long live the Navy--faithful guardian of the Polish sea!

Long live our socialist Fatherland--the Polish People's Republic!

Long live peace and socialism!

Congratulations from Dignitaries

Gdynia PRZEGLAD MORSKI in Polish No 10, Oct 85 pp 25-27

[Text] Greetings, best wishes, and congratulations on the occasion of the Polish Navy's 40th anniversary were sent by the following:

Chief of the General Staff of the Polish Army, Deputy Minister of National Defense, Gen Arms Jozef Uzycki

Assistant Prosecutor General of the Polish People's Republic, Chief Military Prosecutor, Col Henryk Kostrzewa

President of the Military Chamber of the Supreme Court, Gen Bde Kazimierz Lipinski

Commandant of the General Staff Academy, Gen Arms Jozef Kaminski and Deputy Commandant Gen Bde Ludwik Sobieraj

Headquarters, Military Council, Party Committee and Soldiers of the Aviation Troops, Gen Div Tytus Krawczyk, and Deputy for Political Affairs, Gen Bde Jan Celek

Headquarters, Military Council and Soldiers of the National Air Defense Troops, Gen Div Longin Lozowski, and Deputy for Political Affairs, Gen Bde Mieczyslaw Wlodarski

Headquarters, Border Guard Troops, Gen Bde Feliks Stramik, and Deputy for Political Affairs, Col Stanislaw Brodzinski

Headquarters, Military Council, Party Committee, and Soldiers of the Pomeranian Military District, Gen Div Zbigniew Blechman, and Deputy for Political Affairs, Gen Bde Henryk Kondas

Headquarters, Military Council, Party Committee, and Soldiers of the Warsaw Military District, Gen Div Jerzy Skalski, and Deputy for Political Affairs, Gen Bde Jan Socha

Headquarters, Military Council, Party Committee, and Soldiers of the Silesian Military District, Gen Bde Jan Kuriata, and Deputy for Political Affairs, Col Zdzislaw Rozbicki

Deputy National Commander of Warsaw Pact United Armed Forces for Naval Affairs, Adm N. I. Howrin

Representative of the Commander-in-Chief of the ZSZ in the Polish Army, Gen Col Siwienok

Headquarters of the USSR Baltic Fleet (twice-decorated with the Order of the Red Star), Adm K. Makarow, and member of the Military Council, Chief of the Political Board of the USSR Baltic Fleet, Vice Adm I. Alikow

Headquarters, GDR People's Navy, Adm W. Ehm, and Deputy, Rear Adm P.P. Hes

Cuba's Army, Navy and Air Force Attache in Warsaw, LtCol Hernando Hernandez

Army, Navy and Air Force Attache in Vietnam Embassy, Col Le Hun Ty

Headquarters of the Indian Navy

Gen Arms Jozef Urbanowicz

Gen Bde Jan Swiatowiec

Headquarters, Coast Defense Units, Gen Bde Henryk Szafranski, and Deputy for Political Affairs, Col Aleksander Bogowicz

Provincial Military Staff in Gdansk, Chief, Col Zenon Molczyk, and Deputy, Col Jozef Skrzypecki

PZPR Provincial Committee in Elblag, First Secretary, Jerzy Prusiecki

ZSL Provincial Committee in Gdansk, Chairman of the ZSL Supreme Committee,  
Boguslaw Droszcz

Governor of Szczecin Province, Stanislaw Malec

Governor of Elblag Province, Col Ryszard Urlinski

Mayor of Warsaw, Gen Div Mieczyslaw Debicki

Mayor of Gdynia, Jan Krzeczowski

Prosecutor General's Office in Gdansk, Provincial Prosecutor, Ryszard Zegar

Internal Affairs Office of Slupsk Province, Chief, Col Zenon Marcinkowski

Regional Internal Affairs Office in Gdynia, Chief. LtCol Janusz Wydra

Warsaw University Education and Upbringing Administration Office in Gdansk,  
Superintendent, Wladyslaw Tuminowski

USSR Consul General in Gdansk, Iwan Tkaczenko

Libyan People's Office in Warsaw, Mohamed Saad, Attache

Main Administration of the National Defense League in Warsaw, Gen Div Zygmunt  
Huszcza

Provincial Administration of the National Defense League in Gdansk,  
Deputy Chairman, Col Feliks Janicki

Provincial Administration of the Union of Fighters for Freedom and Democracy,  
Chairman, Capt (Res) Henryk Romanek

Main Administration of the Union of Former Professional Soldiers, Chairman,  
Col (Ret) Roman Les

Polish Union of Pensioners, Annuitants and Disabled Persons, Provincial  
Chapter in Gdansk, Chairman, Edward Sablik

Union of Former Professional Soldiers, Provincial Administration, Chairman,  
Col (Ret) Tadeusz Ignaciuk

Union of Polish Disabled Veterans, Local Administration Board in Gdynia,  
Chairman, Edward Smyczek

Former Soldiers (Poles) in the Soviet Army Club, Administration in Gdynia,  
Chairman, Capt (Ret) Ludwik Borowski

Members of the Executive Committee of the Reserve Officers Club in the Gdansk  
Shipyards, Chairman of the Factory Commission, Maj (Res) Andrzej Zochowski

Old Gdynians Circle in Mariners and Dockworkers Trade Union Marine Club in

Gdansk, Chairman, Comdr (Res) Edward Obertynski

Union of Socialist Polish Youth, Local Chapter in Gdynia, Chairman, Elzbieta Czerniak-Gacka

Polish Tourist and Local Studies Society, Navy Chapter, "Watra" Youth Tourism Club, President, Zbigniew Zochowski, Secretary, Anna Kuznicka

Water Scouts, Katowice Troop

Museum of City of Gdynia, Director, Wojciech Zielinski

Main Mining Institute, General Director, Prof Dr Hab Jozef Maloszewski

Polish Petroleum Mining and Gas Production, Torun Geophysics, Director, E. Poleszak

Northern District State Railroads in Gdansk, Managing Director, Dominik Adamek

Silesian District State Railroads, Managing Director, Aleksander Robak

Paris Commune Shipyard in Gdynia, Director, Zbigniew Maciejewski

Deep-Sea Fishing and Fishing Services Enterprise in Gdynia, Managing Director, Edward Budzinski

"Schooner" Fishing and Fishing Services Enterprise, Manager, F. Kirstein

Commercial Seaport in Gdynia, Director, Tadeusz Idzkiewicz

Szczecin Maritime Office, Managing Director, Merchant Marine Capt Jozef Stebnicki

Military Trade Center, Department in Gdansk, Director, Capt Bogdan Kierzkowski

"Rawar" UNITRA Radio Factories in Warsaw, Director, Marian Migdalski

Gdansk Publishing House, Workers Cooperative, Director, Wieslaw Zieniewski

Gdansk Polytechnic, Rector, Prof Dr Hab Eugeniusz Debicki

Higher Navy School in Gdynia, Rector, Prof Dr Hab Piotr Jedrzejowicz

Citizens Militia Cadet School in Slupsk, Commandant, Col Karol Kubalica

Grammar Schools Collective No 6, Gdansk-Nowy Port, Director Franciszek Potulski

Administration, Faculty and Students of the Polish Navy Secondary School No 3 in Gdynia, Director, Roman Gadowski

Grammar School No 2 in Gdynia, youth and children

Grammar School No 23 in Gdynia

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The Navy Command, on behalf of the seamen, cadre, families of military employees, and itself, sincerely thanks the political and social organizations, institutions, workplaces, schools, private individuals and people of the Coast for their active participation in the observances of the 40th anniversary of the Navy's existence and for the greetings, good wishes and congratulations sent to us.

9295

CSO: 2600/146

POLITICS

ALBANIA

#### DISTORTION OF WEDDING DANCE CONDEMNED

Tirana BASHKIMI in Albanian 4 Oct 85 p 3

[Article: "The Dance of the Bride and 'the Orchestra Players' ..."]

[Text] Dances are the most delightful events in the life of human beings. This is how our people have valued dances in centuries and have created their rich traditions, good customs and the beautiful songs of the joyful Albanian wedding dances.

Our party has also carried out a great ideological struggle in this field in order to cleanse the wedding ceremonies of the stains of the past, of religious rites and of backward habits. Nevertheless, here and there, we observe special cases where, in one form or another, openly or secretly, the stains of the past manifest themselves and badly clash with the happy milieu of our wedding ceremonies. On the first days of September a wedding ceremony was held in one of the best establishments of the city of Korce. Everything started and was progressing in the best manner possible. The bride was dressed in white, a simple dress from the knitwear combine. The dinner was simple, not expensive, but satisfactory. Popular dances and songs were at their height. The young couple, the family and guests were at the height of their happiness. And, precisely at this moment, somewhere near the orchestra loud drumbeats were heard and, immediately after, there was the sound of a special melody; "The wedding march of the bride," someone cried.

The wedding march! How wonderful. The bride, newly arrived in the new home, is the central figure of the wedding ceremony; therefore, she deserves the most beautiful, joyful dance. And, the bride gets up and comes to lead the dance. She is beautiful, ornate, happy. The dance suits the new bride. But, what is happening? ... The clarinetist gets up and stands in front of the dancers. Someone comes and puts some paper money, 25 leks, on his forehead. And, the clarinetist, playing his clarinet at the highest tone, makes his way while twisting his body so that the dancers may see his forehead covered with paper money. The dance continues. Another dancer follows the example set by the first one and puts some paper money on the forehead of the orchestra player and places himself beside the dancing bride. Some others do the same. The dance rotates and the table of the orchestra players is covered with paper money of 5, 10 and 25 leks.... Someone else, wanting to show off and prove that he is better than the others, places some paper money, 50 leks, on the forehead of the clarinetist.

In this manner, the wedding dance diminishes the wedding ceremony of the bride instead of embellishing it. The orchestra players are not satisfied until they have collected hundreds more leks by speculating on the bride's dance, on the sick pride of some people who want to show that they are "people who keep customs."

The dance of the bride, a part of the beautiful ceremony of our wedding custom, is turned into a custom foreign to our socialist wedding. Therefore, our sound social opinion seriously condemns this action. Very few still practice this backward custom because, even in those wedding ceremonies where these activities of showing off are manifested, the mass of the participants not only do not follow them, but also laugh at them and disdain them. However, this contempt remains passive without direct action. The educational role of the Democratic Front Organizations is required in this matter so that social opinion may be effective. It is not enough to punish and disdain a backward custom; it should be combatted to the very end. A special work is needed, especially with some orchestra players, all workers from economic enterprises or agricultural co-operatives and, as a matter of fact, some also are from cultural and artistic institutions. What are their leaders and working collectives doing?

9150/12795

CSO: 2100/16

POLITICS

CZECHOSLOVAKIA

# USSR'S FOREIGN POLICY JUSTIFIED

Prague TRIBUNA in Czech 27 Nov 85 p 2

[Article by Frantisek Kudrna: "The Basis of Our Policies"]

[Text] I think it would be difficult to find an opinion with which we could agree with Mrs Jeanne Kirkpatrick, former U.S. delegate to the UN and representative of the most reactionary anticommunist forces in the United States. But it has happened. She hit the nail on the head when in the Sunday issue of the WASHINGTON POST (17 Nov 85) she wrote in a commentary before the summit meeting in Geneva: "Gorbachev has to deal with the end of the arms race because his priority is a better life for the Soviet people and the development of the Soviet economy."

She is right. Naturally, it is not the personal responsibility of Gorbachev as Mrs Kirkpatrick stated. (Even though the whole world highly appreciates Gorbachev's contribution, especially at the Geneva talks--his high principles, knowledge, persistence, elan, pointedness and sense of reality.) It expresses the basis of our system, our policies. Armaments and the living standard go hand in hand in mathematical proportion, not only for Soviet workers but essentially for all the inhabitants of this planet: increased armaments mean a reduction of the living standard of the broad masses of people. Only a small group of people profits from and makes a living from them. The intent of our policies--whether domestic or foreign--always was, is and will be to improve the workers' lives, that is, to fight for arms reduction. Even such an ardent anticommunist like Mrs Kirkpatrick must, willy nilly, recognize these humane endeavors of ours.

At the very beginning of their movement the communists inscribed on their banner the welfare of the people. And even today--as is formulated in the proposed new edition of the Program of the CPSU--based on new conditions, they are striving to achieve a new level of development in the workers' standard of living.

This new level, however, can only be attained in peacetime! That is why a program of peace has also been a part of our movement from the very beginning.

It is worth mentioning that for us peace was never a matter of opportunism or tactics. For instance, in 1916, V I Lenin wrote in his work "On Caricatures

of Marxism and 'Imperialist Economics': "In the thesis of the periodical SOCIAL-DEMOCRAT we clearly announced that our party, if the revolution brought it to power in the current war, would offer a democratic peace without delay to all the fighting nations."

And so it happened. The struggle for peace became the cornerstone of the policies of ruling communist parties. It was thus before World War II and it is so now.

Perhaps the reader will forgive me if I cite one more quotation which, in my opinion, incisively characterizes the timeless essence of our policies. It was said in 1934 at the 17th Congress of the VKS (b) [All-Union Communist Party (Bolshevik)]: "Ours is a policy of maintaining peace and strengthening commercial relations with all countries. The Soviet Union does not want to threaten anyone and--by the same token--attack anyone. We stand for peace and advocate the idea of peace. But we do not fear threats and we are determined to return blow for blow with weapons of war. Whoever wants peace and seeks economic ties with us will always get support from us. Those, however, who try to attack our country will meet with crushing resistance so that in future they will lose their taste for sticking their pig snouts into our Soviet garden!" When we think about the essence of it we see that it has not changed today either--those principles were fully reflected in the position taken by Comrade Gorbachev at Geneva as well as at the subsequent meeting of leading representatives of the Warsaw Pact in Prague.

Events confirmed that there were no empty words or excessive self-confidence, not in any respect. But they also showed that some people are incorrigible.

The peace-loving policies of the Soviet Union following World War II continue. I would take up a lot of space just enumerating Soviet post-war peace initiatives, proposals for arms reduction and disarmament. The USSR also works in this direction by example. Many a time it carried out unilateral action in reducing arms in the hope that the other side would do likewise. But they always swept it off the table saying that it was only propaganda....

The USSR inscribed in the history of humanity with letters of gold a pledge that under no circumstances would it be the first to use nuclear weapons!

Vainly would we look in our lexicon for threats of force or flexing of muscle. Our strategy is not based on policies from a position of strength; it is neither one of intimidation nor deterrence but expressly defensive. To evoke fear by means of arms is contrary to our policy, our social interests and objectives.

We do not have to act out the world's image of peace lovers or make a trial run of the peace discussions (as was rumored at the White House when R. Reagan allegedly refined his role in the debate with a person acting "like Gorbachev"). For us these are basic principles of our life.

We are well aware, however, that in the capitalist world what was once written by the Englishman T.J. Dunning (who lived between 1799 and 1873) is

still true: "Capital is afraid of not making enough profit or very small profits...If capital gets enough profit then it gathers courage. It suffices to assure 10 percent and it can be used anywhere; with 20 percent it becomes spirited; with 50 percent it will risk its neck; with 100 percent it will trample on all human laws; with 300 percent there is no crime which it would not risk..."

And modern armaments bring capitalism fabulous direct profits. The arming of space--that is a heavenly dream of profits! Should we then be surprised at all those provocations that were arranged before the summit meeting--beginning with the kidnapping of the Soviet diplomat Yurchenko through to the deployment of more cruise missiles literally hours before the meeting, etc., etc.?

At the same time the world was astonished that the U.S. Secretary of Defense sent a letter to the President of the United States just before the summit meeting and--released it to the press! It was published in the NEW YORK TIMES on 13 November 1985. It contained a strong attack on the Soviet Union based on false and completely unfounded allegations and urged the President to emphasize at the meeting that the United States would not observe the signed agreements on antimissile defense and the so-called SALT 2 agreement!

We can look at this from any angle--in any case, it is an unprecedented and unconscionable matter, whether previously arranged or not. But it demonstrates, among other things, that big business, in the interests of maintaining enormous military profits, is really capable of anything--any kind of lies, baseness or violation of all standards. There was an avalanche of world reaction which should have made any road to understanding impossible. Therefore, only a fool could expect that the meeting in Geneva would be a magic wand and make any essential change in the world situation.

Limiting the nuclear threat is, however, in the interest of all humanity, not only the Soviet Union and the socialist countries. Therefore it pays to have strong nerves and not allow oneself to be provoked. That is why the Soviet Union went to Geneva and tried to achieve positive results in the summit talks. The whole world sees and welcomes the deliberate, responsible but also firm procedure of the Soviet leadership which, however, also makes clear that restraint does not mean weakness. It is still true that we will not let anyone stick his snout into our socialist garden! Policies advocated from a position of strength never applied to us. And especially not today when--as is known--there is rough parity in military might.

The summit meeting in Geneva clearly demonstrated that the Soviet Union is fully prepared to go its part of the way to relax international tension and to develop cooperation among states with differing social systems. Now we will see if the words about peace and cooperation which the other side also expressed are intended only for world opinion. If they also mean action they can count on us! That resounded clearly in Geneva and in Prague!

8491/13167  
CSO: 2400/87

CZECHOSLOVAKIA

POLITICS

# DISSATISFIED RENTERS COMPLAIN ABOUT 'RED TAPE'

Bratislava PRAVDA in Slovak 28 Nov 85 p 4

[Text] "We know very well that the voluntary work shifts we organize to clean up the towns, villages or streets are necessary and useful acts. They are evidence of an active attitude of each and every individual." These are the opening words in a letter of complaint addressed to our editorial office by the collective of tenants of building No 2740/14 on Safarik Street in Trencin. We have decided to publish this letter because its content was quite different from other letters we have received in spite of the fact that the letter contains a number of shortcomings, which is natural. On reading the letter we discovered that the tenants of the abovementioned building regularly and willingly participated in the beautification program of their immediate environment. For over 6 years, they volunteered their services in the beautification brigades whenever the situation called for it.

However, we were primarily interested in that part of the letter where the tenants informed us with regret that they would not take part in future brigades to protect and improve the environment. They noted that they were aware that their decision was not a correct one but that they could not do otherwise. They had a reason for what they were doing. Moreover, they added, this is the only way how to fight the unusually outdated red tape which, compared to other forms of red tape, is absolutely stagnant. And this situation has lasted too long. The tenants, however, hoped that after reading their letter, we would understand and help them.

What is the problem?

For a long time, their work order was "buried" somewhere at the Trencin Okres Housing Construction Cooperative. This work order called for a new glass pane for the front door. For the past 3 weeks, the house stewards were calling at the maintenance office daily without any result. They only heard the same old excuses and new promises. And in the meantime, the entire building suffered from a cold draft. During heavy rains, some apartments had been flooded. "Believe us," they complained, "it is difficult to persuade people who get water in their apartment whenever there is rain to volunteer for a brigade. Or the parents of small children whose apartments became refrigerators during cold days. Why should they

volunteer when those who are paid do not do their job? After all, each and every one of us pays Kcs 96 monthly into the repair fund of the housing construction cooperative."

The tenants of the aforementioned building chose this form of complaint out of desperation. After all, this is neither the first nor the only case involving the solution of their everyday problems. The same cooperative has been "sitting" for the past 8 months on another of their work orders. That order did not call for fixing the front door but for repairing the washing machine. The machine has been uselessly sitting in the communal laundry room for some time. The tenants believe that with our help they will finally see some action to remedy the situation. They hope to join the others in the future volunteer brigade organized by the national committee and that they will do so with good feeling.

Believe us that when we read this letter we have to get angry in spite of our best intentions. And rightly so. After all, the problems the tenants of a cooperative building must face are not unique. Many other readers turn to us with similar problems.

Immediately after reading the complaint of the tenants we wrote to the Okres co Housing Construction Cooperative and waited for the answer. We received the following reply: "You wrote us a letter in which you asked for our opinion on the complaint sent to you on behalf of the tenants of building No 2740/14 on Safarik Street in Trencin by their house committee concerning the repairs of facilities in common use, namely, the glass section on the front door and the repair of the washing machine in the laundry room. The washing machine has not yet been repaired because our present contractor, the Belusa Metal Works, refused to work for our housing cooperative. The Belusa Metal Works justified its inaction by pointing to the fact that its employees have enough work to do in Central Slovak Kraj. An offer to repair the washing machines during the next Five-Year Plan was made to us by the Metal Production (Kovovyroba), Trnava Okres Enterprise of Local Economy, where we placed our order to repair the aforementioned washing machine on 8 November 1985 with a request for emergency service. Even if we had a sufficient number of our own maintenance people, we do not have the necessary spare parts. However, we believe that our new contractor will make it possible for us to avoid similar problems in the future. For securing other types of work we have sufficient personnel and capabilities."

These are the words of the cooperative's workers. What to add to their answer? We were surprised by the fact that the glass section on the front door and on the windows of the drying room, which the tenants of the building finally repaired themselves, is only mentioned casually. Also surprising is the fact that the answer concerning the repair of the washing machine is the fact that the answer concerning the repair of the washing machine is not persuasive. The tenants have no other choice but to wait for the workers of the Metal Production of the Trnava Okres Enterprise of Local Economy to answer their call.

We have solved the problem. The tenants now have their door and window fixed and the work order to repair the washing machine is now in the proper hands. All seems to be in order. However, it is not. We believe that with a bit of genuine effort and willingness, the two sides could solve the problem by themselves. On the whole, one has to agree with the attitude of the tenants because their complaint was justified. Regrettably, in each case we can apply the old proverb which says that when two parties are fighting one another, it is the third party who wins. In this case, however, the opposite is happening. It is innocent people who suffer from the fact that the tenants refused to take part in the brigade. We are talking about the children for whom the brigade could build a new playground or senior citizens who could have new benches in front of the building. And these two groups should not be penalized by the mistakes of others.

1277/9190

CS0: 2400/115

POLITICS

CZECHOSLOVAKIA

# ROLE OF JOURNALISM IN IDEOLOGICAL WORK DISCUSSED

Bratislava PRAVDA in Slovak 19 Dec 85 p 5

[Article by Milos Marko, Institute of Marxism-Leninism: "Mobilizing Journalism"]

[Excerpts] On anniversaries of historical events, the mass information and propaganda media revive "historical memory" and draw on it in dealing with present and future progressive development. The 15th anniversary of the adoption of the "Lessons from the Crisis Development in the Party and Society after the 13th CPSU Congress," served not primarily to evoke analyses and discussion of this period, even though individual sectors of our society, following deep probing, quickly overcame the disruption and embarked on a road of unprecedented progress. The "Lessons" and the resolution on "Current Problems of Party Unity" anniversary rather served as an impulse for reflection on present problems which we must master and the ways and methods of doing it.

The efforts of the antisocialist forces during the crisis period were aimed against the Marxist-Leninist character of the party, its revolutionary ideology, and was focused primarily against mass ideological education. Destruction, deformation and disinformation in this sphere reached such dimensions that the proponents of this trend were predicting a 10-year period during which the beneficial impact of press, radio, television and film would be eliminated. After the April 1969 session of the Central Committee and a differentiation process guided by the "Lessons," there was a rapid consolidation in this area. Today, the mass information and propaganda media form a firm component of the party's educational, ideological and organizational work and an effective instrument of party influence, as well as a forum for mass public opinion.

Journalism has drawn appropriate conclusions from our party congresses, among them its ideological and educational orientation, focus on our economic and social programs, notably the scientific and technological revolution, on the intermeshing of these programs, with emphasis on education, youth and workers, on the inter-dependence of environment and labor effectiveness in the achievement of a high living standard, on the intensification of socialist integration among the socialist countries, especially scientific and technological cooperation with the USSR, on

questions of incentive and dependence on concrete results, etc. Journalism presents and explains the congressional thesis and postulates on socialist policy, and alliance with the Soviet Union, the guarantor of our prosperity and security. The thesis on the growing importance of subjective factors requires presentation of articles and programs on the heroes of labor, as well as materials on other party and cultural personalities.

In accordance with the demands of the 16th CPCZ Congress, the press sees its primary responsibility in the mobilization of our entire society toward consistent fulfillment of the party line. The media arm the public with clear stands on fundamental problems of domestic and foreign policy, elucidate the perspectives of socialist construction, and explain truthfully and from Marxist-Leninist positions the basic developmental trends in our society. They bring the readers and listeners high-quality information and commentary, they aggressively expose and rebut the falsehoods of hostile propaganda, spread the truth on real socialism and the growing impact of the ideas of Marxism-Leninism and socialist internationalism.

The growing role of the mass information and propaganda media derives from two factors, namely, the complicated tasks of our time and higher demands on people in terms of education, cultural quality and dedication. The content of press, radio and television must be lively, interesting, devoid of empty phrases and schemes; it must relate to real life and problems. The reconstruction in some ideological sectors, notably journalism, derives from the need to make them responsive to current citizens' interests and requirements.

The party congresses have emphasized the importance of the economy, its quality, effectiveness, creative search for the new, an atmosphere of high expectations, criticism and self-criticism where appropriate. Of foremost significance is the realization that scientific and technological progress is the key to the transition of our economy to the road of intensive development, and the most important factor in higher labor productivity.

In the economic sphere, journalism not only monitors its thematic breadth but also creates an atmosphere depicting the vital importance of material and technical prerequisites for social development, it stimulates economic thinking toward fulfillment of qualitative indicators, more economic use of raw and other materials, savings in energy consumption, and the trend toward scientific and technological modernization.

High demand on the content and character of the media also assumes added importance at a time of sharpened international tension. There continue to be two basic trends in international relations, on the one hand the growing influence of the socialist community on peaceful and progressive development in the world, and on the other **the growing effort** by the military-industrial complex, especially in the United States, to counter this influence and development. The sharpening of the ideological struggle is also affected by the fact that the economic successes and political weight of the USSR, the other socialist countries and antiimperialist tendencies in the developing countries are growing, while the general crisis of capitalism

is becoming worse. As a result, the reactionary circles in the bourgeois countries mobilize the extreme right-wing forces, promote fresh armament, and set up a gigantic machinery for the conduct of psychological warfare. These facts must alert us against any type of manifestations of right-wing opportunism and revisionism. There is increased importance in world outlook education, even more so because the hostile diversionary centrals focus on the revival of political clericalism, the "all-redeeming" political pluralism, and the incitement of nationalism.

The sharpened class struggle in the international arena and its reflection in the domestic sphere, place demanding tasks before our ideological front. New potential conflict areas, Reagan's risky nuclear armament steps on the one hand and the disarmament and peace policy of the USSR and the entire socialist community on the other, motivate Czechoslovak journalism to devote more attention to international problems and to improve its polemic and argumentative strength. The United States strategy of world domination, the destabilizing activity of the Vatican, as well as a new wave of anticommunism, all this is appropriately reflected in our mass information and propaganda media. Proceeding from the "Lessons," journalism explains its international validity and the historical experience that progress was victorious as long as Marxism-Leninism was creatively applied, while any deviation from this turned out to be very costly.

There is a growing need to explain to the working people the essence of the party's foreign policy, the peace initiatives of the USSR and its effort to avert a nuclear catastrophe. The press must guide the working people toward uncompromising class consciousness, to vigilance against imperialism, while exposing the growing aggressiveness of the imperialist circles in the United States and their helpers in NATO. The attacks of the anticommunist centrals are aimed at the basic tenets of real socialism, namely, socialist democracy and the socialist economic system with all its values. Consequently, our media must expose, day after day, the fraudulent apologists of contemporary imperialism, mendacious information or disinformation, as well as denigration of real socialism, in a consistent, elastic and effective counterpropaganda drive.

Anticommunism, again and again, operates with determination and cleverness against socialism in the economic, military and ideological spheres. Among their sustained methods is the exploitation of obsolete bourgeois nationalist manifestations, especially political clericalism which played a shameful role in the times of fascism and continues to maintain it in all the reactionary social and economic systems. An integral part of the assault against real socialism is the clerical form of anticommunism waged from the Vatican which attacks our patriotic priests in *Pace in Terris*, under the resounding slogan of defending the faith. Our media help in countering effectively this effort to misuse religious feelings of the believers in hostile activities against our socialist fatherland. In this, the media can fully rely on our citizens' past experiences, their social interests and patriotism, as well as on the movement of patriotic priests.

The defense of socialism in individual countries has been formulated as one of the important common responsibilities of the entire socialist community as far back as the Bratislava meeting of socialist countries' representatives in July 1968, at a time when the counterrevolutionary danger in the CSSR was growing. The historical "Lessons" were confirmed in congressional resolutions and journalism must not only adhere to them verbally but must creatively apply them in the current conditions of ideological confrontation. Our historical experiences have taught us that cooperation with the Soviet Union offers a merging of national and international interests, that it is part of the fundamental principles of our socialist development.

Offensive methods of the ideological struggle remain the basic task of our propaganda and we cannot abandon its basic forms, namely, criticism of the external contradictions of our time emanating from ideological confrontation, i.e., the struggle against the exploitation character of the bourgeois system, and criticism of the growing crisis of capitalism and the aggressive practices of imperialism leading to a nuclear threat. It is also important to counter bourgeois concepts as disseminated by their ideologically diversionary centrals against real socialism. This is even more important when we realize that the CSSR is confronted with all types of ideological struggle, i.e., anticommunism, anti-Sovietism, denigration of real socialism, and other militant diversionary psychological methods. These forms are flexible and differentiated, combining classical and new methods, manufactured in dozens of "institutes" and research centers, under the common brain center of the CIA and joint subsidies from the military-industrial complex.

The fundamental requirement facing our ideological front is intensification of the class content of our ideological education, its orientation toward enhancement of the class, socialist, patriotic and internationalist consciousness of our working people. We must make sure that these ideals reach the broadest possible strata of our citizens, that they be correctly understood, and that each and every one of them realize that the current struggle to avert war and reduce the armament race is in their own, most intimate, interest.

9496/12624

CSO: 2400/126

POLITICS

POLAND

SELECTIVE PUBLISHING OF EMIGRE AUTHORS SUPPORTED

Warsaw ARGUMENTY in Polish 27 Oct 85 p 2

[Article by [WIR]: "Ennoblement? Yes, But For Whom?"]

[Text] Should we publish literary works created abroad? Should we publish emigre authors in Poland? These questions make certain sense. Writers abroad who write in Polish have a limited range of influence. Important works can and have been created abroad; perhaps we should acquaint ourselves with them and benefit both intellectually and artistically. After all, we have accepted the writings of Witold Gombrowicz because without them our literary life would have been poorer, and this is good. We have experienced the return of Marek Hlasko, post mortem to be sure, but also natural in the deepest sense; it is here that his place has been and still is. Our publishing policy has not been very deficient in this area and we do not have to "make up" for anything or to apologize for "sins" which really have not been committed. We have done more than just a "good beginning." In fact, we have developed a quantitative preference: Milosz, a Nobel prize winner, has never experienced publishing success as great as in our country. Has this experience in any way altered his political views? Unfortunately, not, even though he should have demonstrated some gratitude and loyalty... However, let us not make moral demands which are beyond his reach, may God take care of him...

Nevertheless, I believe that the opening the gates of reading Poland to obviously political emigres does not have to assume the form of universal amnesty; we do not have to allow everybody through the door. When giving a literary visa to Poland, it is important to consider each author on individual basis with political criteria carefully applied. This is not a trivial problem. Return to homeland objectively means an ennoblement of the emigre author, no doubt. Yet, we are not obligated to grant this privilege to anyone, particularly to those who feel contempt for Polish reality and wage attacks against our system and socialism. Some may object to the application of such severe a criterion, a non-literary one. But if we consider this case more carefully, we will notice a certain link between the greatness of artistic achievements and the distance of the writer from the extemporaneous demands of the "emigre" politics and from his old political sentiments. No doubt, a lot can be forgiven, but it must be done with moderation and for a price. After all, the presence of

a book on the reader's market in the homeland is nothing less than placing the writer on the threshold of immortality or at least giving him a real chance to achieve it.

The above comments notwithstanding, I do not believe that the problem is that serious. It boils down to making sure that the case of the "emigre literature" is considered not on a wholesale but on a case by case basis, and particular attention paid to the literary-artistic merits of the work in question. For it is important to bring here what really interests us; that is writings which show new horizons, represent high literary level, and can enrich our literary tastes and needs. The rest should be left for research and analyses, critical and historical essays, and perhaps for inclusion in some anthologies. We must know what happened in emigre literature, but we do not have to honor every writer only because he lives and writes abroad.

The other day I attended a discussion dealing with this problem. Some participants out of their great ignorance postulated "overcoming delays" and overriding bias against the emigre literature. It was demonstrated, however, that the plans of various Polish publishers in this area are neither narrow nor fragmentary: it is anticipated that more than 80 books will be published in the years 1984-88. The scope of these projects can be measured against those of the Wydawnictwo Poznanski [the Poznan Province Publishing House], a serious Polish publisher, whose yearly literary production amounts to just 70 titles. In other words, the plans with regard to emigre writers exceed the yearly production of a medium-size publishing house, serving domestic writers... In the era of paper shortages and printing problems, when a home writer must wait for several years and more to see his book published, the generosity and zeal of some publishers with regard to emigre writers seem to be extravagant. I repeat: there is no need to "overcome" anything or to correct "errors." Something has opened here too suddenly and too fast; was it heart or economics? I do not know. But I am positive that we are dealing with excess.

The publishing plans are huge. For example, there are projects to publish 14 books by Czeslaw Milosz--and about him--in 500,000 copies, books by Marek Hlasko in 200,000 copies, collected works by Zygmunt Nowakowski in 300,000 copies! Whatever we say on the subject thing is clear: we are dealing with a high tide which sweeps away 2 million other books--mostly by home writers. Thus, we have to deal with an unexpected problem: discrimination against home writers and favoritism toward foreign authors in difficult publishing situation. What kinds of artistic merit are to be taken into account? Again, we should not give a "wholesale" answer, but consider each case separately. And yet, the wholesale actions and plans of the publishers smack of not always justified intentions; they are a sort of exaggeration. That is why they should be synchronized with the existing capabilities and the need to publish faster the home writers, who, after all, earn their living--not always a comfortable one--this way...

There is also another aspect of this question. There are plans to publish a book by Zagajewski which creates a new problem: who should and who should

not be popularized in Poland at least based on moral considerations. No doubt, we should not be too harsh when it comes to the "old emigres," who have resided abroad since the end of the war, but there should be no compromise with yesterday's fugitives--those who passionately attack our state. Gentlemen, we must come to our senses. We cannot support and reward authentic adversaries--this would be absurd! Particularly, when literary merits and offenses against the homeland cannot always be balanced...

Carelessness of some publishers and the ease with which they pick at random writers and literary works must make us think about their capacity to recognize and evaluate facts. Apparently, some of them believe that state institutions can go beyond the state interests and limits of reason...

Poland is one and our culture is one, no doubt. Our fatherland is one as well as our culture, but one must come to it in order to feel at home and among your own people. It is our moral obligation--I concede--to extend our hand to the lost ones, but to stick it into the unknown? Thanks, but no thanks.

8609/9190

CSO: 2600/136

POLITICS

ROMANIA

FOOD MARKETING TRANSFERRED TO DOMESTIC TRADE MINISTRY

Bucharest BULETINUL OFICIAL in Romanian Part I No 73.23 Dec 85 pp 2-3

/Decree No 396 of the State Council on Transfer of Sales of Agricultural Food Products from the Ministry of Agriculture and the Food Industry to the Ministry of Domestic Trade/

/Text/ The State Council of the Socialist Republic of Romania hereby decrees:

Article 1. As of the date of the present decree sales to the public of vegetables, fruits, potatoes, table grapes, meat and meat products, milk and milk products, and other agricultural food products is transferred from the Ministry of Agriculture and the Food Industry to the Ministry of Domestic Trade /MAIA, MCI/.

Article 2. As of the date of the present decree the enterprises for vegetables and fruits, specified in Annex No 1, are transferred from the jurisdiction of the MAIA (General Economic Directorate of Horticulture) to that of the MCI.

The enterprises for vegetables and fruits are in Group V of the sector and have the grade of organization specified in Annex No 1.

The enterprises for vegetable and fruits have the organizational structure specified in Annex No 2 (sent to the institutions concerned).

Article 3. The enterprises for vegetables and fruits are also under the Executive Committees of the County and Bucharest Municipal People's Councils.

Article 4. The enterprises for vegetables and fruits specified in Annex No 1 are engaged in:

a. Contracting for and purchasing the output of vegetables, fruits, potatoes and table grapes from socialist agricultural units and private farms that are intended for the market reserve and their own processing, with the exception of fall potatoes, which are contracted for with the private farms by the cooperative units for production, purchases and sales of goods;

- b. Storage and ensilage of these products for the fall and winter period;
- c. Semi-industrial processing of the vegetables and fruits, including manufacture of cooling drinks in the production areas arranged in the storehouses;
- d. Retail sales, through their own units, of vegetables, fruits, potatoes, table grapes and other agricultural food products as well as carbonated waters and soda water;

Article 5. Centers for vegetables and fruits and offices for sales of same may be founded in the enterprises for vegetables and fruits at points other than those where those enterprises are headquartered, as units without juristic personality organized according to the approved structural standards.

Article 6. As of the date of the present decree the Enterprise for Displaying Food Products, with headquarters in Bucharest municipality and under the MAIA, is hereby disbanded.

The activity of the Bucharest Enterprise for Displaying Food Products is transferred to the Comalimint State Trade Enterprise under the MCI.

Article 7. As of the date of the present decree the Bucharest Gostat Stores Enterprise under the MAIA (Department of State Agriculture), as well as the trade centers for sales of agricultural products under the county trusts for state agricultural enterprises, specified in Annex No 3 (sent to the institutions concerned), are hereby disbanded.

The activities of the units specified in Paragraph 1 are transferred to the General Trade Directorate of Bucharest municipality and to the county trade directorates.

Article 8. As of the date of the present decree the following are transferred from the MAIA network to the MCI network according to the agreement:

- a. The stores, sales outlets and public catering units of the state poultry raising enterprises under the Central for Poultry Production as well as other enterprises and centrals under the supervision of the MAIA (Department of State Agriculture);
- b. The stores for display and sales and the public catering units of the industrial centrals under the MAIA;
- c. The stores of the enterprises for processing and industrial processing of vegetables and fruits and the units for sales of alcoholic beverages, including bottled wine, belonging to the vineyard and wine enterprises, as well as other enterprises under the MAIA (General Economic Directorate of Horticulture).

Article 9. As of the date of the present decree supply of the retail sales network with canned vegetables, fruits, tomato paste and other industrially processed truck-garden products is transferred from the enterprises in the MAIA system to the wholesale trade enterprises for food products under the MCI.

Article 10. As of the date of the present decree the organizational structure of the MCI is supplemented with the Trade Directorate for Vegetables and Fruits according to Annex No 4 (sent to the institutions concerned), and the maximum number of personnel on the ministry's staff is modified accordingly, according to Annex No 5 (sent to the institutions concerned).

The Trade Directorate for Vegetables and Fruits operates on the basis of workers self-management and economic-financial self-administration and has juristic personality.

Article 11. The Trade Directorate for Vegetables and Fruits has the following main functions:

a. It is responsible for contracting for vegetables, potatoes, fruits and table grapes, on the level of the plan for sales to the public.

b. It is responsible for drafting the sales plan and covering it with the required stock in trade according to seasons and in the planned assortments.

c. It is responsible for and regularly checks the reception and formation of the stock in trade specified for the public's supply.

d. It is responsible jointly with the suppliers for forming the necessary stockpiles of vegetables and fruits to supply the trade network regularly throughout the year, and also for stocking the reserves for the fall and winter period.

e. It is responsible jointly with the Executive Committees of the People's Councils, for organizing and developing the trade network for vegetables and fruits, with special emphasis on introduction of modern marketing methods and expansion of street trade.

f. It is responsible for uniform organization of the activity of the agricultural food markets and it checks jointly with the Executive Committees of the People's Councils their supply of high-quality products according to public demand.

g. It is responsible for uniform organization of semi-industrial processing of vegetables and fruits in the production areas in the storehouses for vegetables and fruits.

Article 12. The assets and liabilities according to the balance sheet compiled as of 31 December 1985 together with the economic and financial plan indicators and the concluded contracts are transferred from the disbanded or reorganized enterprises to those founded or taking over the activities according to the present decree, on the basis of the agreement.

Personnel transferred to the founded or reorganized units are considered transferred in the interest of the service.

Article 13. Personnel transferred in the interest of the service or transferred to functions at lower pay, as well as personnel who have become surplus, because of the present decree enjoy the benefits specified in Article 21 of Decree No 162 of 1973 on Uniform Structural Standards for Economic Units.

Article 14. The provisions of Decree No 367 of 1980 on Measures for Rational Use of Personnel in Socialist Units, the validity of which was extended by Decree No 451 of 1984, do not apply to positions in the units reorganized according to the present decree, positions on the staff of the MCI, or positions in the units to and from which working personnel are transferred pursuant to the present decree.

Article 15. Equipment of the units under the MCI with special low-tonnage passenger cars specified in Annex No 6 (sent to the institutions concerned) and with a passenger car to carry persons in the interest of the service is hereby approved.

Article 16. The State Planning Committee and the Ministry of Finance will present, within 45 days of the date of the present decree, suggestions to modify the plan indicators according to plan administrators, with the resulting effects and with maintenance of the budgetary balance, for 1986 for the MCI.

Article 17. Annexes Nos 1-6 are integral parts of the present decree.

Nicolae Ceausescu  
President of the Socialist Republic of Romania

Bucharest, 20 December 1985  
No 396

5186  
CSO: 2700/65

POLITICS

ROMANIA

# RESPONSIBILITIES FOR POWER PLANTS DEFINED BY DECREE

Bucharest BULETINUL OFICIAL in Romanian Part I No 73, 23 Dec 85 pp 5-6

/Decree No 397 of the State Council on Improved Organization of Construction-Installation and Capital Repairs of Electric Power Plants/

/Text/ The State Council of the Socialist Republic of Romania hereby decrees:

Article 1. The Ministry of Industrial Construction /MCI/ is the general contractor for nuclear-electric and thermoelectric power plants, performing construction and installation operations as well as capital repairs on those facilities.

The Ministry of Heavy Equipment /MIUG/ installs and makes capital repairs on the machinery and equipment for the thermoelectric, hydroelectric and nuclear-electric power plants.

The Ministry of Electric Power /MEE/ is the general contractor for hydroelectric power plants and high-voltage networks, while also performing hydraulic construction operations, constructing high-voltage networks and stations and making capital repairs on those facilities for all electric power plants.

Article 2. As of 1 January 1986 the Cernavoda Contracting Enterprise for Nuclear-Electric Constructions under the MEE will be transferred to the Bucharest General Contracting Central for Industrial Constructions under the supervision and control of the MCI.

Article 3. As of 1 January 1986 the Bucharest Energoconstructia General Contracting Trust under the MEE will be transferred to the MCI.

Article 4. As of 1 January 1986 the Bucharest Energomontaj General Contracting Trust under the MEE will be transferred to the Bucharest Industrial Central for Power Equipment under the supervision and control of the MIUG.

The Bucharest Industrial Central for Power Equipment will also take over developments of approved capacities in connection with installation and capital repair operations performed by the Bucharest Energomontaj General Contracting Trust.

The contracts of the Bucharest Energomontaj General Contracting Trust are under a twofold jurisdiction, since they are also coordinated by the appropriate equipment building enterprises.

Capital repairs on turbines and related installations, as well as the corresponding number of personnel, are hereby transferred from the Bucharest Energoreparatii Enterprise under the MEE to the Bucharest Energomontaj General Contracting Trust.

Article 5. Annex No 3e (Organizational Structure of the Bucharest Industrial Central for Power Equipment) to Decree No 223 of 1985 on Measures to Improve the Performance of the Units Under the MIUG is hereby amended and replaced by Annex No 1 (sent to the institutions concerned) to the present decree. The maximum number of positions on the central's own staff is increased by 31, including three management positions and two as engineer, economist, physicist and first chief chemist, and Annexes Nos 3 and 4 to the same decree are amended accordingly.

Article 6. The organizational structures of the Bucharest Vulcan Enterprise, Resita Machine Building Enterprise, Cluj-Napoca Heavy Equipment Combine and Bucharest Heavy Machinery Enterprise are hereby supplemented with one position each as chief engineer for installation and repairs of power equipment under the directors of the power equipment and machine building enterprises and the deputy general director for installation and capital repairs of power equipment in the Bucharest Industrial Central for Power Equipment.

Article 7. Article 19, Paragraph 1 of Decree No 220 of 1985 on Organization and Operation of the MIUG is hereby amended to read as follows:

"The MIUG has the following organizational structure:

- a. Directorate for Plan-Production and Development;
- b. Directorate for Installation and Capital Repairs of Power and Technological Equipment;
- c. Directorate for Technology, Investments, Mechanical-Power Engineering and Repairs;
- d. Directorate for Foreign Trade and International Economic Cooperation;
- e. Directorate for Supply and Contracting;
- f. Directorate for Finance and Contracting;
- g. Directorate for Organization, Control, Personnel, Education and Wages;
- h. Special Service
- i. Secretariat-Administrative Service and That for Secret Documents."

Article 8. Annexes Nos 1 and 2 to Decree No 220 of 1985 on Organization and Operation of the MIUG are hereby amended and replaced by Annexes Nos 2 and 3 (sent to the institutions concerned) to the present decree.

Article 9. As of 1 January 1986 the construction equipment, transport means, maintenance and repair stations, and sections and shops serving the units in Articles 2, 3 and 4 in the Bucharest Energoutilaj Enterprise for Heavy Construction Equipment under the MEE will be transferred to the specialized units of the MCI and MIUG according to the agreement concluded by the three ministries.

Article 10. As of 1 January 1986 the Fagaras Contracting Enterprise for Nuclear-Electric Constructions, headquartered in Beclean commune, Brasov County, will change its name, headquarters and affiliation to the Victoria Contracting Enterprise for Nuclear-Electric Constructions, headquartered in Victoria city and under the Brasov General Contracting Trust for Industrial Constructions under the supervision and control of the MCI.

Article 11. The construction-installation units transferred from the MEE to the MCI and MIUG retain their approved maximum numbers of personnel and managers for their own staffs as well as the approved grades of organization.

Article 12. The assets and liabilities determined according to the balance sheet compiled as of 1 January 1986 together with the economic and financial plan indicators and the concluded contracts are hereby transferred from the units reorganized according to Articles 2, 3, 4, 9 and 10 to the Bucharest General Contracting Central for Industrial Constructions, the Bucharest Industrial Central for Power Equipment, the Brasov General Contracting Trust for Industrial Constructions, and the units for heavy construction equipment under the MCI and MIUG.

Personnel transferred to the Bucharest General Contracting Central for Industrial Constructions, to the Bucharest Industrial Central for Power Equipment, to the Brasov General Contracting Trust for Industrial Constructions, to the Bucharest Energomontaj General Contracting Trust, and to the units for heavy construction equipment under the MCI and MIUG are considered transferred in the interest of the service.

Article 13. Base pay of technical, economic, other specialized and administrative personnel in all units and subunits operating on the premises of the Cernavoda Nuclear-Electric Central is set according to Group II of the sector in compliance with the provisions of Law No 57 of 1974 on Remuneration According to Quantity and Quality of Work.

Article 14. The maximum number of personnel who can receive higher base pay for difficult working conditions and a worksite increase, approved for the MCI, MIUG and MEE, is modified according to Annex No 4 (sent to the institutions concerned).

Article 15. Personnel detached according to law to perform operations on the premises of the Cernavoda Nuclear-Electric Central benefit by detachment compensation.

Article 16. Nonlocal personnel working on the premises of the Cernavoda Nuclear-Electric Central benefit by daily transportation to and from work by public transport means or buses rented according to an agreement, for a distance of 3-60 km and for payment by personnel of 30 lei a month. The rest of the cost of transportation is paid out of the units' budgets of incomes and outlays.

Article 17. Annexes Nos 1, 9 and 10 to Decree No 277 of 1979 and Annex No VIII/I to Decree No 377 of 1979 are supplemented, for the MCI, with nine passenger cars to carry persons in the interest of the service, seven minibuses, 38 trucks with capacities under 1.5 tons, and a special truck with an isothermal body and a capacity below 1.5 tons, by means of a corresponding reduction in the number of motor vehicles for the MEE.

Annexes Nos 1, 9 and 10 to Decree No 277 of 1979 are supplements, for the MIUG, with 12 passenger cars to carry persons in the interest of the service, 10 minibuses and 42 trucks with capacities below 1.5 tons, by means of a corresponding reduction in the number of motor vehicles for the MEE.

Article 18. The State Planning Committee and the Ministry of Finance will present proposals within 30 days of the date of the present decree to modify the economic and financial plan indicators in the Unified National Plan for Socio-economic Development and the 1986 State Budget that are approved for the MCI, MIUG and MEE, in pursuance of the present decree.

Article 19. The provisions of the present decree are applicable within the approved economic and financial indicators for 1986 for the MCI, MIUG and MEE.

Article 20. Personnel transferred in the interest of the service or transferred to functions in the same unit at lower pay, as well as personnel who have become surplus, because of the present decree enjoy the benefits specified in Article 21 of Decree No 162 of 1973.

Article 21. The provisions of Decree No 367 of 1980 on Measures To Make Rational Use of Personnel in Socialist Units, the validity of which was extended by Decree No 451 of 1984, are not applicable until 31 March 1986 to positions in the units to and from which personnel are transferred pursuant to the present decree.

Article 22. Annexes Nos 1-4 are integral parts of the present decree.

Nicolae Ceausescu  
President of the Socialist Republic of Romania

Bucharest 21 December 1985  
No 397

5186  
CSO: 2700/65

POLITICS

ROMANIA

#### PARTY WORK SHORTCOMINGS NOTED IN LIGHT INDUSTRY MINISTRY

Bucharest SCINTEIA in Romanian 25 Dec 85 pp 1, 5

[Article by Rodica Serban and Alexandru Pintea: "The Revolutionary Spirit of the Management Personnel Is Manifested in the Performance of Tasks, in Concrete Participation in the Activity of All Communists"]

[Text] Light industry, as one of the chief producers of goods in our country, occupies a distinct place within the national economy. In the documents of the 13th congress and in the many direct meetings of the secretary general of the party with the staffs of the units in light industry, the priority tasks that face them have been pointed out: the further reduction of consumption and of product weight, the advanced utilization of raw materials, including recoverable and reusable ones, the more marked growth of labor productivity and the reduction of manufacturing costs, and, in this way, the raising of the competitiveness of the products of our light industry on the world market.

The speech given by Comrade Nicolae Ceausescu at the November plenum of the RCP Central Committee also constitutes for those who work in the hundreds of enterprises in light industry an inspiring work program, a stimulus to fulfill well the plan for this year and the objectives of the 1st year of the 1986-1990 5-year period. In these units too, as everywhere, the Communists must be at the head of all the actions, must be examples of abnegation and self-sacrifice, showing by deeds the understanding of the great responsibilities that result from the capacity of a party member. As Comrade Nicolae Ceausescu pointed out at the November plenum of the RCP Central Committee, "The new stage of development of our homeland imposes as an objective necessity the improvement of management, the growth of the responsibility of the party and state bodies. Each party and state activist must be filled with a high revolutionary spirit, with responsibility to the party and to the whole populace."

Tasks of particular responsibility devolve, equally, upon the Communists who work in the Ministry of Light Industry. Because there, in the ministry, decisions are made and tasks are established which have a strong influence on the activity of the centrals and enterprises in this branch. Starting precisely from the complexity of the problems that confront this ministry, we proposed an investigation on the topic: How the personnel with responsible positions participate in the life of the party organizations to which they belong, in

the orientation of them towards the major tasks of the ministry, and in the growth of the efficiency of the actions undertaken.

From the very outset, a positive finding: All the general assemblies of the Communists have been centered on the most urgent problems, being situated in the "heart" of the present, of the efforts to perform as well as possible the tasks that the party leadership sets before those who work in this branch of the national economy. The topics of the general assemblies of the basic organizations are generated by the very objectives and responsibilities that devolve upon the ministry and the staffs of various departments in applying the decisions of the 13th party congress and in performing the tasks that the secretary general of the party has set, on various occasions, before the working people in light industry: the improvement of product quality, the introduction of new manufacturing technologies, the growth of labor productivity, the reduction of material and energy consumption and the growth of the percentage of recyclable materials used, and the matter of widely promoting for exportation the products achieved by this branch of the national economy. The same concern for being directly anchored in the present also characterizes the problems raised for discussion at the plenums or bureau sessions of the party committee in the ministry.

Consequently, major topics, with broad implications, whose placement on the agenda has meant, every time, an occasion for a critical analysis of the situation in one field or another, with the naming, without beating about the bush, of shortcomings, of the causes, and of those who are to blame for them. Even if they hold management positions. Or for precisely that reason, considering, as Comrade Nicolae Ceausescu pointed out at the November plenum of the RCP Central Committee, that to be a minister or to have a management position means the assumption of greater responsibility, the obligation to act firmly and strictly to implement the party decisions and the country's laws. Analyzing the progress of the activity of the basic organizations in the ministry, we can say that there is a favorable climate for the participation of all Communists, regardless of the position held, in properly carrying on party life.

How is this favorable framework used by the Communists who hold management positions in the ministry to involve themselves in the activity of the party organizations in proportion to the authority and responsibility with which the Communists are invested?

In addition to direct participation in organizational life, the practice of organizing joint analyses of the party committee and the management council of the ministry constitutes a way of directly attracting the management personnel to party work. Two such analyses, in which plan fulfillment was examined, took place this year.

In the basic organizations too, the management personnel in the ministry take an active part by presenting information on the priorities found in the forefront at a given time and by effectively contributing to the preparation of the materials presented in the general assemblies. As a rule, comrades with management jobs, along with other specialists, are also included among the party members who compose the groups preparing the reports and statements.

Thus, they make an important contribution by noting positive experiences or existing shortcomings, resulting from supervisory actions and from personal findings made on the spot, and by pointing out urgent problems in a period.

The interest that the general assemblies prepared in this way enjoy is shown both by the good attendance and especially by the number and substance of the remarks. The comments of the minister, his deputies, the directors and the other personnel with management positions often are also among them. The fact that their participation is not used as an occasion to outline new tasks for subordinates is positive. The personal involvement in performing the tasks that go to the basic organization to which they belong, to the Communists and to the ministry's staff is felt in these comments. Observations, criticism to the point, and concrete proposals that have enriched and are enriching the decisions adopted, the solutions for rectifying things, are not absent.

However, some shortcomings, to the elimination of which the Communists with responsible positions could have contributed more efficiently and more promptly, are also making themselves felt in the activity of the party committee and of the basic organizations in the ministry. The fact that well-planned actions and well-thought-out decisions of the general assemblies have not had the anticipated effect is also explained by the inconsistency of these personnel regarding the fulfillment of responsibilities that devolved upon them from the plans of measures of the party organizations. Not by chance, one finds that, periodically, the very same problems are raised again in certain discussions, either in the plenums of the party committee or in the general assemblies of the basic organizations--which, at first sight, can be interpreted as continuity, as persistence in solving a problem. On a deeper analysis, however, one finds that, in fact, this is a repetition of the same findings and shortcomings, which indicates both the poor effectiveness of the discussions and the insufficient concern for pursuing and implementing the decisions adopted. In the April general assembly of basic organization no 3, for instance, someone expressed openly the opinion that the deficiencies that were the object of the respective discussion had also been discussed at other times and even years ago. In the very same assembly, another speaker formulated an explanation: "Much time is still lost in preparing new plans and programs of measures; in contrast, much less is allocated for putting them into effect, for pursuing the fulfillment of the measures established. So it is that good measures, whose application would have helped to improve the party activity, the work of the Communists in the ministry, remain only on paper."

Clearly, the party committee and its secretary bear the chief responsibility for this deficiency. But to stop the responsibility just at this level would mean to view things simplistically. Through the positions that they hold, through the political capacity that they have, the personnel with responsible jobs have the ability to spot such deficiencies in time, knowing from the party documents and from the speeches of the secretary general of the party how much concern is devoted to consistently implementing the party's decisions and their own decisions. However, the fact that such inconsistencies are manifested, that they put their imprint on the activity of the basic organizations, of the Communists, shows that even the personnel with responsible

positions, including the secretary of the party committee, have not always acted decisively to eliminate such deficiencies.

Consulting the minutes of the general assemblies of the basic organizations, we did not find written on the agenda any analysis of the way in which a decision or a plan of measures involving the improvement of the work in a sector of activity was implemented. The failure to systematically pursue the precise implementation of all decisions adopted by the Communists, by those who had the task of carrying them out, has led in the activity of some Communists to the establishment of the practice of limiting themselves to findings and of criticizing shortcomings, without really involving themselves in resolving them. Some management personnel of the directorates in the ministry (the Technical Directorate, the Directorate for Foreign Trade and International Economic Cooperation), as was noted in a party assembly, have become a sort of "collectors" of unsolved problems. In addition, there is manifested in some party members--and even in the category of those who hold certain responsible positions (department heads, directors)--the tendency to exculpate themselves for not performing tasks by means of the shortcomings in the work of others, in other departments, instead of saying openly that they did not do their duty as they should, stating what they intend to do in order to no longer resort to such flimsy "arguments" in the future. For example, production for exportation has constituted, in one form or another, the topic at several general assemblies of basic organization no 3, to which the Communists in the Directorate for Foreign Trade and International Economic Cooperation also belong. But many problems discussed in these assemblies have still remained unsolved because, as the deputy minister who is responsible for this area, referring to the activity of some management personnel in the foreign trade and technical directorates, stated in such a general assembly, "Too many questions that involve others, in other sectors of the economy, are still raised, instead of mobilizing our own forces and utilizing our experience and skill to create new, original products that would attract the interest of foreign partners." Or another example. "We must recognize," it was said during a general assembly of basic organization no 1 in the Directorate for Organization, Control, Pay and Education, which analyzed the deficiencies existing in the attainment of the targets for growth in labor productivity, "that there is an erroneous mentality that we have not managed to eliminate. In some centrals and enterprises, instead of seeking concrete solutions for growth in labor productivity, 'justifications' that we accept too easily, without opposing them and taking steps to improve the situation, are 'produced' in series." An isolated mentality? Unfortunately not, as long as the Communists in the managements of some directorates in the ministry--the directorates for technical matters, the plan, organization, supply, and exportation--found under the same roof, have not made time to collaborate effectively to find and apply the most efficient methods of attaining the productivity set by means of the program. Although these methods exist, are applied in many enterprises and need only be expanded and generalized, precisely through the collaboration of the Communists in these directorates and through the more direct and effective involvement of the management personnel of the ministry in solving such a vital problem.

To the party committee within the Ministry of Light Industry also goes the chief responsibility for not fulfilling an obligation that each Communist has,

stipulated in the party statute, that of reporting periodically to the general assembly about the performance of political and professional tasks. In organization no 2, for example, in the course of a year, only four Communists presented individual reports. In the other basic organizations too, the number of those who described their activity is not suitable. Among those who nevertheless reported, there is not one director or deputy director, not one deputy minister, Communists who actually bear the responsibility, along with the party committee and the bureaus of the basic organizations, for the nonfulfillment of tasks, of plan provisions and of their own programs of measures, otherwise sensibly drawn up with well-defined responsibilities. Inexplicably, the management personnel have also been excepted from the individual talks, which constitute, for each party member, an occasion for self-analysis and reflection on what he has achieved and on his own shortcomings. The use of this statutory provision, which is not optional, but mandatory, even in the case of the Communists who hold management positions, would have undoubtedly helped to strengthen the activity and the prestige of the basic organizations and to increase the spirit of responsibility and discipline of each Communist and, all the more, of those who hold management positions. As a matter of fact, the strengthening of the responsibility, order and discipline in all areas of activity of the ministry must represent a constant, everyday concern of the bureaus of the basic organizations and of the party committee there. The personal example of the personnel with responsible jobs, starting with the members of the party committee, has an important role in this regard, because you cannot have the necessary moral authority to ask others to obey the work rules as long as you personally do not always heed them and do not militate for the strict observance of them.

Tasks of the greatest significance go to the Ministry of Light Industry in 1986 and in the new 5-year period. The exemplary implementation of the decisions of the 13th party congress by the staffs in this strong industrial branch depends to a considerable extent on the way in which the ministry fulfills the role of an organizer and coordinator of a complex activity, of the effort to continually make changes and adapt to the ever growing exigencies on the domestic market and, especially, of the competition on the foreign market. Consequently, the party organization in this ministry must also substantially improve its style and methods of work. A more systematic character must be imparted to the actions undertaken, to the initiation and accomplishment of which all party members, without exception, and especially the personnel with responsible jobs, must contribute, participating, through the prerogatives that devolve upon them, in all decisions that are made for improving the activity in this field. The technical potential of light industry, the high qualifications of the worker personnel, and the talent and creative thought of the workers and specialists are the premises for a fruitful activity. It is the foremost duty of the Communists in the Ministry of Light Industry to help, with all their might, to harness this potential, so that the entire activity may be raised to a qualitatively higher level, as was also pointed out at the plenum of the RCP Central Committee on 13-14 November.

12105

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POLITICS

YUGOSLAVIA

ZAGREB WEEKLY DISCUSSES MCFARLANE RESIGNATION

Zagreb DANAS in Serbo-Croatian 10 Dec 85 pp 36-37

[Article by Zivko Gruden: Change in the White House; Why Did the Dove Fly Away]

[Text] McFarlane is Reagan's third National Security Advisor to leave that position. Is this a reflection of the rivalries and conflicts that are smoldering at the top in Washington?

New York (from the permanent correspondent of DANAS)-- In leaving, McFarlane was "the same" as he was when he filled the office of the President's National Security Advisor: restrained, discreet, and somehow apart. During the quick, ten minute-long announcement of the change that took place in the White House press conference room -- McFarlane on the right of Present Reagan and his successor Poindexter on the President's left -- there was not even the most subtle allusion to the reasons for McFarlane's departure. McFarlane responded to a journalist's question regarding misunderstandings and conflicts with the White House Chief of Staff with a single word: Nonsense.

By virtue of his office, he had been a member of the President's "inner circle" -- he briefed the President every morning, and there had been days when he had entered the Oval office three or four times but somehow he was an outsider: President's assistant but not friend, a well-informed and expert advisor who, however, had no taste for anecdotal interpretations of serious political issues, a devoted and loyal staffer to whom the "old boys" were as foreign and distant as he was to them.

When he was appointed National Security Advisor in October of 1983, Robert McFarlane was felt to be a "compromise choice." He was already the second shift in that office during Reagan's first term (McFarlane's predecessors were Richard Allen and William Clark). Ever since Eisenhower instituted the job of the National Security Advisor, presidents have frequently filled it with "independent thinkers" who were outside the political framework. In that regard, McFarlane was not typical, and the centers of power in the administration greeted him with relief: no one viewed McFarlane as a threat to his own power and influence.

During Reagan's second term, however, Robert McFarlane's influence on the formulation of foreign policy and the policy of national security -- including defense, armaments, the so-called regional problems, the struggle against terrorism, etc. -- grew steadily and surprisingly quickly. While McFarlane was not able to ameliorate the disagreements and conflicts between the "doves" in the State Department led by Secretary of State George Shultz and the "hawks" in the Defense Department headed by Caspar Weinberger regarding the key issues dealing with relations with the Soviet Union and arms control, it is likely that his power grew also thanks to his frequent role as mediator in these disputes.

Analysts feel that McFarlane supported "the Schultz line" in at least 80 percent of the cases which, in view of the position of the National Security Advisor, was frequently the deciding weight on the scale. Such relations between the head of the State Department and the National Security Advisor will be noted as something of a rarity, because in the past decades conflicts between the two offices have grown more and more acrimonious as the power of the National Security Advisor grew (Kissinger-Rogers, Brzezinski-Vance, Allen-Haig). Up until a short time ago, those best informed regarding the relations in the administration have felt that the Schultz-McFarlane axis was the dominant force in the administration. It was maintained that, when two come to an agreement, they were able to break down any opposition to their positions.

The office of the National Security Advisor has grown from the President's need in recent times to have quick answers to specific everyday political questions. Unwieldy institutions like the State Department and the Defense Department, which are busy with their own interests and are entrenched in their own positions, are not always willing to provide such answers. At the same time, almost every president -- some more, some less -- has structured the organization and functioning of the White House to suit him. Eisenhower introduced elements of a military chain of command, Kennedy reduced staff as much as possible in an attempt to communicate directly with the heads of the various ministries and make independent decisions on the basis of information thus gathered, while Nixon organized it as a pyramid and maintained contact with only a handful of assistants who provided him with information that had already gone through quite a selection process.

Even though, in the words of Lincoln, "the president's is the only voice that counts," huge differences in the process of decision-making are evident from president to president. Admittedly, Reagan has chaired an average of 50 sessions of the National Security Council per year, and Carter approximately 10. Still, totally informal meetings, such as working breakfasts for example, have frequently been at least an equally important "mechanism" for airing positions and formulating policies. Under such conditions, and in accordance with their own styles, National Security Advisors have interpreted their offices quite differently.

In view of McFarlane's very intensive involvement in the last two hostage crises -- the passengers on the hijacked TWA airliner and the ship "Achille Lauro" -- and especially in view of his involvement in the preparations for

the Geneva summit meeting, the outcome of which the administration feels was unequivocally successful, his resignation came as a surprise. McFarlane was an advocate of having disputes with the Soviet Union resolved through diplomatic channels, and of adhering to the practice of holding regular summit meetings. Ever since Reagan's trip to Europe last year, he regularly purged the President's speeches of inflammatory anti-Soviet rhetoric with which the writer of those speeches, Patrick Buchanan, richly adorned them.

The explanation that there was constant friction with the White House Chief of Staff, Donald Regan, an allegedly autocratic figure who could not endure having anyone go past him, "the number two man in the White House," into Oval Office, does not seem to satisfy anyone. It is surprising, however, that no one is able to find a more convincing explanation, just like no one is willing to predict the political implications of the change. It is true that Donald Regan, a former Treasury Secretary, belongs to the circle of President Reagan's close assistants and long-term friends, but is it true, as some maintain, that Donald Regan has cleared for himself a way to become involved -- on the side of the "hawks," of course -- in the area of foreign policy? This is being countered by the idea that Schultz had definitely consolidated his position -- the proof being that Weinberger was left out of the team that went to Geneva -- and that McFarlane's departure will not significantly affect the balance of forces in the administration. Many emphasize that it all depends on how the new National Security Advisor, McFarlane's former deputy John Poindexter, a vice-admiral and a PhD in nuclear physics, turns out. He was selected by Reagan from among five candidates, reportedly at McFarlane's recommendation.

If it is true that the 49-year old vice-admiral is "completely apolitical," as is these days being maintained by the authors of his brief biographies, then any prognosis regarding his future influence would indeed be difficult to make. If it is true that he has received assurances that he will have open access to the President that will bypass any intervention on the part of the White House Chief of Staff, it means that Donald Regan either was unable to do anything or else he does not see in Poindexter the kind of danger he saw in McFarlane. The authors of Poindexter's biographies emphasize his intelligence, diligence, enormous ability to work, and extremely pragmatic approach to problems. He was graduated from the naval academy in 1958 at the head of his class, and in 1964 he defended a doctoral dissertation in nuclear physics at California Institute of Technology under Nobel Prize winner Rudolph Mossbauer. He served in the Indian Ocean and in western and southern Pacific and, in 1981, as part of the navy command, he was assigned to the National Security Council. For the most part, he dealt with the so-called regional problems and "the resolution of crises" (hostages), and only recently with arms control. It has been claimed that he had played a key role in the interception of the Egyptian plane carrying the hijackers of the ship "Achille Lauro." At the same time, it has been noted that, practically speaking, he is still totally untested in regard to key foreign policy issues and that, even though he gives the impression of being a calm and cautious person, he has acquired the reputation of being an advocate of the utilization of military force as a diplomatic tool.

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SCIENCE AND TECHNOLOGY

CZECHOSLOVAKIA

TECHNOLOGICAL RESEARCH, COOPERATION WITH CEMA URGED

Prague RUDE PRAVO in Czech 16 Dec 85 p 1

/Text/ At the 16th meeting of the presidium of the Central Committee of the Communist Party of Czechoslovakia, comrade Lubomir Stougal made a report on the implementation of the Eighth 5-Year Plan for the economic and social development of the CSSR and of the plan for 1986. It was emphasized again that the transfer of technological research into production is of utmost importance for our further economic development. A virtually vital struggle is being put forth in this domain. And, in this particular connection, it was stated that "in spite of our considerable efforts, the economic and technological potential of our country is unable to ensure in required time, the appropriate acquisition of that broad spectrum of science and technology, of the present and future heights of human knowledge."

The above-mentioned formulation is neither a manifestation of lack of faith, nor an expression of economic weakness; it is an objective and thoughtful evaluation of reality.

We are spending considerable capital for the R&D progress, approximately 4 percent of our national income, which is more than other industrially developed countries do. Our scientific research base already comprises almost 190,000 workers which, in the ratio to number of inhabitants, ranks us again prominently in the world.

Why then, despite such great effort, are we unable to master in the time required all the inventions offered by science and technology?

It is well known that most of the long-range projects require great concentration of forces and means. With our resources however, we have to cover more than 300,000 kinds of products we are making and 20 to 25,000 objectives of R&D progress to be solved every year. As a consequence, all the resources and capacities of our scientific research base instead of being concentrated on and geared to one principal task, are too dispersed and intolerably atomized. In one technology development project for instance, essentially only two creative workers of the scientific research base are engaged. Elsewhere in the world, this concentration is up to ten times larger. The dispersion of research leads to our falling behind the rest of the world in many branches or to attaining only an average technology level.

It is however understandable that we cannot lower our R&D requirements. How could we then multiply our efforts in order to have at our disposal the most up-to-date knowledge in the required time and on the required level?

It is obvious that it has to be achieved by narrowing the products selection. But this alone would not be sufficient. Our priority is to participate more closely in R&D cooperation with the sister CEMA countries, i.e., with countries close to us not only in the political, social and economic sense, but equally interested in accelerating their social and economic development on the base of mutually advantageous cooperation, specialization and R&D collaboration.

A lot has been done in this respect. In the past years, in the framework of the association of socialist countries and on bilateral and multilateral bases, more than 18,000 theoretical and research studies have been accomplished and 1,500 technologies were either improved or created; participate over 3,000 research organizations and universities in this mutual cooperation.

We are profiting from and actively contributing to this enormous potential. In the Seventh 5-Year Plan, our programs of R&D cooperation with the CEMA member countries include over 600 new projects. Their up-to-date result was the introduction of 227 new types of machinery and equipment, over 100 new technologies were applied in practice. In 1985 for instance, we have transferred to other countries altogether 3,622 complete R&D documentations and received 2,933 from them.

Since the adoption of the comprehensive program of socialist economic integration, we concluded over 220 international agreements on R&D cooperation on the level of central agencies. Unfortunately, not all of them brought the expected results. Although Czechoslovak research organizations conclude with their foreign partners approximately 150 to 200 contracts in an overall value of over 150 million crowns, this contractual R&D cooperation covers presently in the CSSR less than one percent of R&D work. What are the consequences? An unequivocal reality that all possibilities, offered by the R&D cooperation of socialist countries, are not yet fully exploited.

It is often the consequence of the fact that closer contacts, efforts to achieve closer inter-connections and activity coordination, do not start already at the very beginning, when a new and hopeful sphere of new technology development appears.

For instance in automation, each socialist country tried at the onset to show what it can do and thus parallel robots appeared in several different places. With time it became apparent that nobody is able to master the launched long-range trend on his own. The effort to unify development and production, to create a whole line of complementary robots met with difficulties making the existing results of development in the particular country unusable.

On the other hand, automation showed what can be gained by cooperation. Some years ago, three contracts on cooperation in the development of industrial robots were concluded between the Research Institute of Metallurgy Presov and R&D institutes in the SSSR. It resulted in models with development time shortened by two years, with considerably increased parameters and all this was achieved while saving almost 25,000 hours of development capacities. These results encouraged both partners to search for new ways and lead to the creation of the joint R&D organizational association ROBOT, representing at present one of the highest organizational form of mutual relations between our country and the SSSR.

But why are there not more such examples between the two countries?

It is true that our system of management is still not sufficiently influencing the relevant organizations to search on their own initiative a way to solve their problems in a closer cooperation with organizations in the partner countries. Dealings are often made difficult by many differences in legal regulations, by diverse outlooks on the effectiveness of work in the R&D workshops. It is obviously necessary to project all these experiences into appropriate rules and regulations changes. This applies not only to the relevant CEMA agencies, but to our respective central institutions as well.

At present, the elaboration of the Comprehensive Program for Research and Development Progress in the CEMA countries till the year 2000 is nearing completion; it will be discussed at the extraordinary CEMA meeting held on the level of heads of governments and will converse in Moscow tomorrow. This fundamental document gives to the cooperation of socialist countries not only a new content, but it looks as well for new forms of efficient realization. The conditions of a closer cooperation would thus be considerably improved.

The device "to join the advantages of socialism with the results of R&D revolution" is really the order of the day; we profess to fulfill it in compliance with the interests of all CEMA member countries.

As it was emphasized at the 16th meeting of the Central Committee of the Communist Party of Czechoslovakia, it is imperative that, in close cooperation with the Soviet Union and all other CEMA member countries, we do everything possible to secure our industrial and technology invulnerability, to fall in step with the most developed countries in per capita production, to penetrate more successfully the world markets and to satisfy better and with higher quality our own requirements, including the safeguard of the defense potential of the socialist community.

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SCIENCE AND TECHNOLOGY

POLAND

# GROWING PUBLIC CONCERN OVER ENVIRONMENTAL POLLUTION

Paris LE MONDE in French 5-6 Jan 86 p 5

[Article by Vincent Wolski]

[Text] In Poland, pollution is assuming the proportions of a national catastrophe. There is no money to attenuate the effects of a hasty and careless industrialization. Opposition voices, the Solidarity in particular, have sounded the alarm for some time, and some official sources are beginning to express concern, even if others are still issuing pacifying statements.

Each morning, before opening their windows, the residents of Wyzyny, a neighborhood in the city of Bydgoszcz, have learned to scrutinize the 60 smokestacks of the nearby Zamech chemical plant. They have been doing this ever since the day they were surprised to find, stuck to their front doors and in the elevators of their buildings, a notice signed by the general who for the past few years has served as their mayor: "Toxic products are manufactured in our city. Unforeseeable breakdowns can give rise to serious pollution situations, dangerous to the life of the population. Under these conditions, a chemical alert could be sounded even in peacetime."

In ten years, "unforeseeable breakdowns" occurred on 11 occasions, the most significant one in 1977, when a tank lost six tons of chlorine right in the center of the neighborhood.

The battle plan, a small masterpiece of military art, is ready: "Emergency services will alert the population through speakers mounted on cars. The population will be evacuated by moving about 500 meters in a direction perpendicular to that of the wind. Individual pads impregnated with a sodium carbonate solution must be provided for the population. The administration will be responsible for evacuating hospitals, schools, and day-care centers."

The Zamech plants produce chlorine, phenol, and aniline; their 60 smokestacks emit 50 polluting substances. In the center of the town, the concentration of nitrobenzene reaches 100 micrograms per cubic meter, while the acceptable level is of 5 micrograms; the level of acidity exceeds the maximum allowable level by a factor of eight. The plant estimates that it would have to invest 10 billion zlotys to stop pollution; its annual environmental protection budget of 600 million, will thus allow it to stop pollution in 14 years.

## "Catastrophic Situation"

In the meantime, the residents of Wyzyny carefully close their windows.

Bydgoszcz is in 12th position on a list rating the magnitude of pollution of 49 regions in Poland. The city of Plock, some 100 kilometers to the southeast, is in eighth position on this list.

The danger which threatens Plock, a petrochemical center with 100,000 inhabitants, is called benzopyrene, a carcinogenic substance.

Its discovery in Plock's air, soil, and water is due to "pure chance," since the routine analyses stipulated for pollution control do not include its detection. "We were so concerned with sulfur dioxide" (exceeded by a factor of three) "and carbon dioxide" (factor of five), "that we forgot benzopyrene. Actually, its presence is inexplicable ..." states the local official in charge of the environment. Indeed, after one year, the specialists have not yet found the source of this pollution. "The situation is totally catastrophic, because the institutes which we have consulted know of no neutralization method. The plant should be closed, but that is impossible."

The concentration of benzopyrene in the water of the Vistula and of Plock faucets varies from 164 to 1000 nanograms per liter, depending on the day, while the standard accepted by WHO (World Health Organization) is 10 nanograms. Benzopyrene has also been detected in the Plock soil: 540 micrograms fall per square meter in a radius of six kilometers from the petrochemical plant.

Some Plock residents go to neighboring villages to fetch water, "at least for the children." "If there is still no panic in Plock," the authorities state, "it's because on some days the standard is exceeded by only very little."

Alas, the nearest center capable of detecting benzopyrene is in Lodz, more than 100 kilometers away, which means that analysis results are often a little late. They tell the residents of Plock that they should not have opened their faucets yesterday.

## Water Shortage in Krakow

The old royal capital of Poland, in the south of the country, is a simpler matter. The city of 700,000 inhabitants is regularly short of water. In some neighborhoods, water is distributed by tanker trucks, in others it comes only at night, and in summer, the population is forbidden to water their gardens and wash their cars.

The water shortage in Krakow, estimated at 100,000 cubic meters per day, is caused mainly by saline pollution from the Silesia coal mines, which daily pour 5400 tons of salt (with 8500 tons expected in five years) in the waters of the Vistula, as well as by drought (the water table has dropped by one meter in three years).

Krakow is second on the list of polluted regions; its carbon dioxide gas emissions are the highest of all Polish cities.

Upper Silesia is struck by all the misfortunes at the same time: polluted air, tainted water, dead forests, and acid soil, are accumulated in this region, which has the highest concentration of heavy industry, coal mines, and thermal power plants. The annual atmospheric pollution averages exceed standards by a factor of six, carbon dioxide by 21-fold, and lead compounds 196-fold! The acidity ratio, which has not been announced since 1975, is one of the country's best guarded secrets. The Academy of Sciences has disclosed that the local administration has purely and simply barred its access to the data.

### Frightening Puzzles

From this partial information, the ecologists are putting together veritable puzzles whose results are so frightening that they don't even dare believe them: "If in the Poznan region, whose area is 8151 square kilometers, the concentration of sulfur dioxide is 82.3 micrograms per cubic meter of air" (a figure covertly "stolen" by Solidarnosc from the city's offices), "what is it in the Katowice region, whose area is less than 1500 square kilometers, and where the emissions are 60 times greater?"

This means that the "Sokolov black triangle" in Czechoslovakia, considered as the region with the highest concentration of sulfur dioxide in Europe, is an enchanted garden compared to the Upper Silesia region, inhabited by more than one million people.

"To see a lunar landscape," writes the weekly PRZEGLAD TYGODNIOWY, which in a long article on pollution in Silesia does not cite a single figure, "I advise you to travel the road between two Silesian towns, Zabrze and Ruda Slaska. Not one tree, bush, or blade of grass. In the distance you will see something that looks like a forest and a field. But only in appearance, because the field is a marsh more acid than lemon juice, and the forest has neither leaves nor bark. On the other side of the road you will see mountains, as well as smoldering and stinking slag heaps. Flowing at the foot of these mountains are sewer streams which, no one knows why, change their beds every month."

Official statements, far from being as specific nevertheless confirm the extent of the catastrophe.

"Ten million Poles live in regions where all pollution standards are regularly exceeded," admitted last spring one of the most official organizations, the Patriotic Movement for National Revival.

The Academy of Sciences is even more explicit: "In five years there will be no more water in Poland," and "20 percent of the flora and 15 percent of the fauna will perish." "Twenty-seven regions" (of the 49 in Poland) "are strongly threatened by the effects of pollution, and four are on the threshold of a true ecological catastrophe."

But the environmental protection committee of the communist party, chaired by a member of the political bureau, Stanislaw Opalko, is much more optimistic: "Our law on environmental protection, passed by the Diet" (Parliament) "in 1980, has no equal in any country in the world." The law maybe, but how about the reality?

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SOCIOLOGY

CZECHOSLOVAKIA

# SALES OF ALCOHOL TO ADOLESCENTS NOTED

Prague TRIBUNA in Czech 23 Dec 85 p 6

[Article by Jiri Janouskovec: "Ah, Yes, Alcohol!"]

[Text] There remained only a sigh, since the problems with serving alcohol to the young are still with us. What good is a law prohibiting this when the management of "Restaurants and Cafeterias," or whatever all these enterprises of the state or cooperative type are called, takes an approach, especially with respect to control, which allows these things. Yes, let us face it, the law is broken in this manner. There is much evidence of this, which occasionally even appears in the press. I have personally met young people who either have already committed or were getting ready to commit a crime under the influence of alcohol. There were among them even those who were planning to leave the country illegally or to rob someone using violence. In the reeducation institute I met girls who, at the age of 13, had become regular users of alcohol, and young men who, since the age of 14, have regularly patronized restaurants where they "put away" as many as ten beers.

My phrasing of the above introduction has a purpose, for now we follow with a letter from Ivan Barta, director of "Prague Restaurants," in which he reacts to a short item we published in our No 42, under the title "Vokalize". For the elucidation of those who might not know what this is all about, we explain. For 5 years now, Vocaliza has been the meeting place of both amateur and professional musicians and singers. Here one can hear jazz, folk music, rock and roll, and many other types of light music. In the above-mentioned item, we criticized the fact that, during concerts lasting 3 nights, alcoholic beverages were served there, not only wine but also hard liquor. Moreover, the organizers and ushers did not live up to our expectations, especially as regards the young in the audience. Secretly or openly, many of them were sipping wine or vodka right in the hall, not to mention smoking while the concert was going on.

Now, let us get back to the letter from Ivan Barta, director of "Prague Restaurants:" "The event at Vokaliza was organized by the Prague House of Culture. One of our enterprises, Lucerna Barrandov, negotiated with the organizers and a contract, properly signed by both parties, was drawn up on 7 March 1985. In paragraph three of this document, the Cultural House

pledges to ensure all appropriate sponsor services and assumes full responsibility for adherence to all valid regulations. Checking the attendance records and income from refreshments sales at the Lucerna site, revealed that drinks at the Vocaliza evening were served in accordance with law no. 120/1962 and under licence to serve "long drinks," approved by the department for commerce and tourist traffic of the Prague National Committee on 23 July 1983."

So much for the letter. Two weeks ago, in TRIBUNA No. 50, however, we published a statement of Karel Klima, deputy director of the Prague House of Culture, in which he says, among other things, the following: "We have no way of influencing the restaurant or organizational services, even though we know they can seriously infringe on our carefully prepared cultural program." The question of which of the two directors is or is not right, we leave to the Prague National Committee. We will now return to the problem of alcohol, since its sales at Lucerna have been frequent subjects of criticism.

Alcohol is served during all concerts, but also at discotheque affairs attended primarily by young people under 18 years of age. The question of why may be answered very easily, namely, business is business, law or no law. I have visited Lucerna frequently on various occasions. I never saw anyone ask a young person for his or her age, much less to check it on the citizen identity card.

I am against serving alcohol at events patronized mainly by adolescents. I don't even care whether or not some national committee had issued a licence for it. Simple logic tells us that making it easy for young people to obtain alcoholic beverages is not a good way to prepare the young generations for the future. I hasten to add that Lucerna in Prague is not the only culprit.

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SOCIOLOGY

ROMANIA

'MYTHS, REALITIES' OF HUMAN RIGHTS EXAMINED

Bucharest CONTEMPORANUL in Romanian 13 Dec 85 p 16

[Article by Ion Margineanu: "Human Rights--Between Myth and Reality"]

[Text] It may be that more than half of the inhabitants of the planet earth had not been born when the General Assembly of the United Nations, impelled by a noble goal, 37 years ago adopted the Universal Declaration of Human Rights. And it may be that even today a good part of the world's population may not know that, in the spirit of that declaration, there is a day dedicated to their rights. That is not due simply to ignorance but rather to the fact that we live in a world still dominated, unfortunately, by profound social inequality where societies founded on oppression and exploitation deliberately do not assure the majority of their citizens the basic right to earn their daily bread through labor, to have free access to education, to the treasures of culture and science, to be able to participate directly in managing different sectors and to have decision making power over their own lives. The road of international life has lately been a path of rearming, in particular, nuclear rearming, an existence of many conflicts and states of tension, of brutal intervention in the internal affairs of other countries, a world economic crisis that has further enriched the wealthy and has reduced the poor to even greater penury. In such circumstances, the fundamental problem of the contemporary epoch is how to stop the rearmament spiral, especially of nuclear weapons, the protection of the basic rights of mankind, to existence, life, liberty and peace.

That is the reality and in the light of that truth we must look to struggle and take the urgent action necessary to assure human rights de facto and not by twists and turns of propaganda. The provisions of that document of profound, ethical and political significance elaborated by the international forum 37 years ago cannot be carried out by shifting attention to marginal, formal aspects, not infrequently provocative, as is done by the apologists for capitalism by trying to draw attention away from the grave social, economic and moral problems in their own house. Nor is it carried out by a cascade of words about democracy and liberty, nor by attempts at brutal intervention into the internal affairs of others, nor by campaigns to instigate citizens of to the countries through slogans and illusions over "a world without borders, a world without fatherlands".

The proponents of such "negatives" seek to realize the ancient aphorism of Caesar: "Greater glory accrues to a state when it makes its borders a vast desert". A desert in which, of course, one would find a hotbed of regressive, antihumanist concepts and political deeds of unjust societies. It is as clear as the light of day that true democracy and true humanism are incompatible with the exploitation of one man by another, with the maintenance and intensification of grave social, economic and political inequalities, with national, social and racial discrimination. Not long ago the West German publication HANNOVERSCHE ALLGEMEINE, referring to the harsh situation of immigrant workers forced to seek work far from home and family, noted that they "were treated like slaves, even worse", being degraded and humiliated, suffering from racism, indifference and scorn. The existence of these more than 12 million emigrants to Common Market countries raises serious problems of family life which have not been solved by any of the West European countries.

One of the most dramatic pictures of the pseudo-liberties of the individual in capitalist societies is that presented by the hordes of unemployed, among whom the vast majority are young people.

A recent study by the International Labor Organization showed that the total number of unemployed in developed capitalist countries currently exceeds 30 million people. Under the umbrella of empty words about liberty, we see a proliferation, like mushrooms after the rain, of the terrible scourge of drugs, a forced apology for violence, diverse forms of fascism and revanchism. Anticommunist crusaders, dressed in all kinds of clothes, employ errand boys who have chosen the path of stateless "liberties" to heat up the cold war. A French jurist, according to Marc Lemaury, wrote: "In relations between East and West, the utilization of human rights is an ideal method for intervention. The dissident thus becomes a pawn at western disposal, a vector of information and litigation". We Romanians have also had bitter experience with so-called bourgeois democracy, its concomitant suffering for the people and the enslavement of the country. Having become free and the master of its own fate, the Romanian people is now the architect of its own history, rejoicing in the full measure of rights and liberties that only the socialist system could guarantee it. The constitution and laws of the country assure full equality in work, education and culture, as well as the material conditions for the full exercise of those rights: the organs of our revolutionary workers democracy create the conditions for active participation by all citizens without discrimination by nationality in the management of all sectors of activity. The new concept of social and moral justice that exists in Romania emphasizes man as the deciding factor in all economic and social transformations, in implementing a rich civilization of equality and rights that preclude inequalities among classes and individuals. The spirit of humanity, the defining characteristic of the Romanian people, was raised to power in the years of socialism and, in particular, in the 2 decades since the 9th Party Congress. Thus, as comrade Nicolae Ceausescu emphasizes: "In our country we strongly affirm the principles of socialist humanism, the essence of which is liberation from exploitation, the liquidation of social inequalities and, on that basis, the multilateral flowering of man's personality, the advance, in the social realm, toward the benefits of

collectivization; the development of the capabilities and talents of each member of society to his full human potential for the motherland".

In the sphere of international relations, socialist Romania and its president are acting tirelessly to build a better more righteous world, without arms and without wars, for constant cooperation among peoples so that men can build in peace and compose their own present and future. Life and reality brilliantly demonstrate the full influence of our country in translating into fact the "Universal Declaration of Human Rights".

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